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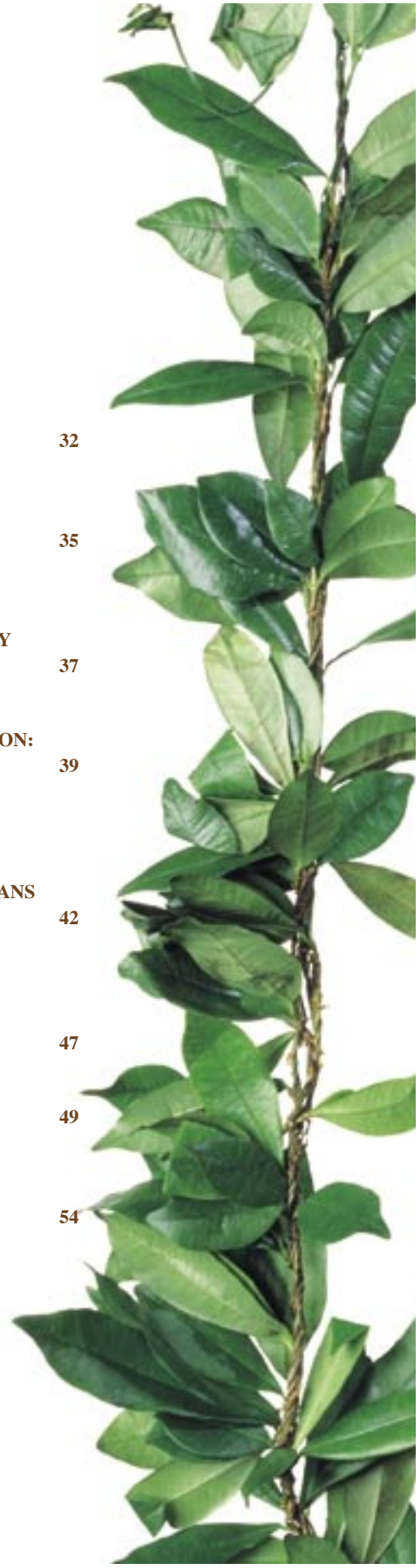

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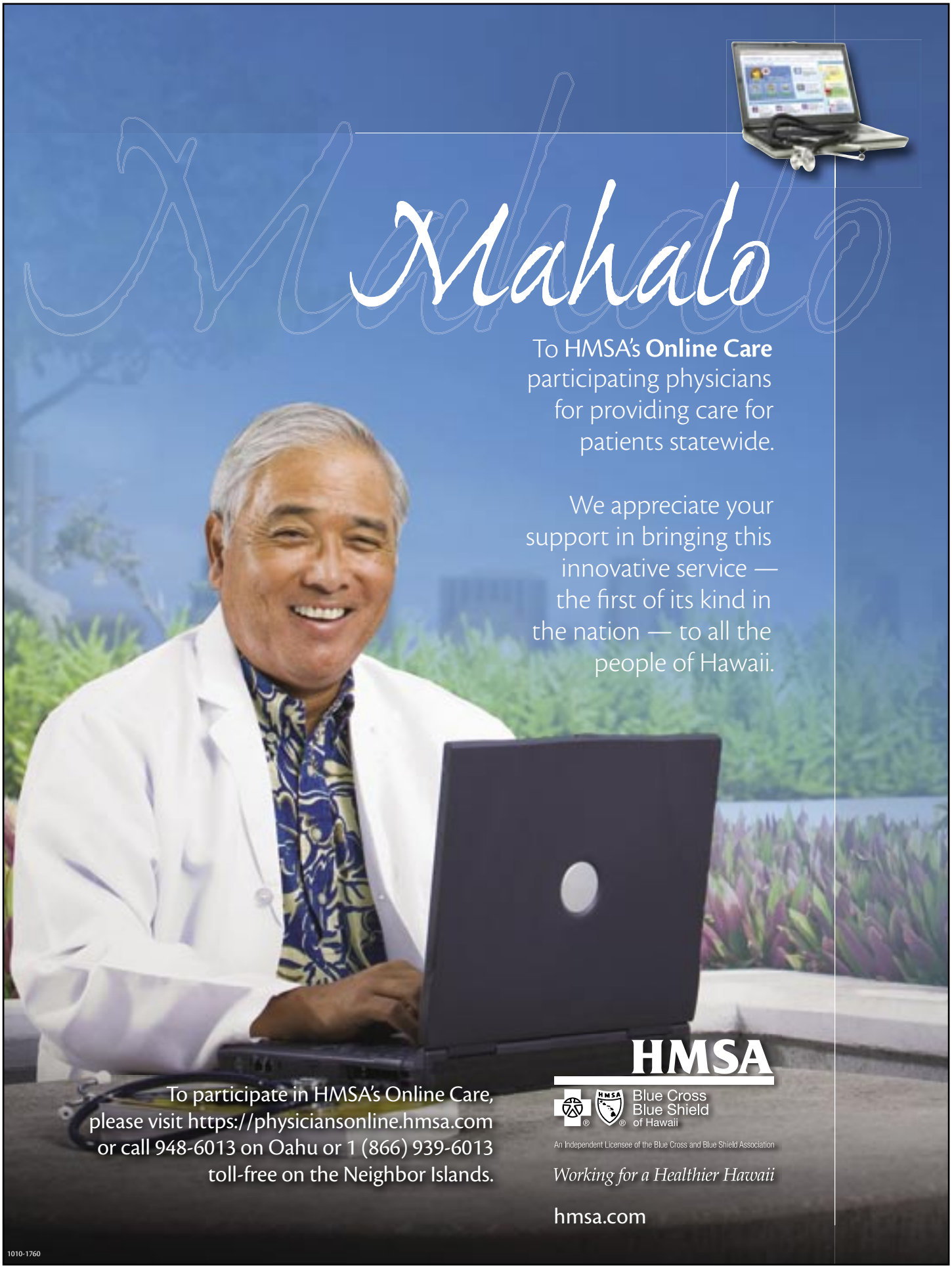
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Lymphoma Diagnosed at Inguinal Hernia Repair

David R. Veal BS; Chet W. Hammill MD; and Linda L.Wong MD

Abstract

Tumors presenting in the inguinal hernia sac are considered to be extremely rare, with the more common neoplasms metastasizing from the gastrointestinal tract, ovary and prostate. We report the case of Mantle cell lymphoma identified in the inguinal hernia sac following hernia repair. While the hernia sac appeared normal to the surgeon, evaluation by the pathologist showed subtle gross irregularities, with subsequent histologic and immunochemical diagnosis of Mantle cell lymphoma. Twelve previous cases of a lymphoma diagnosed during hernia repair have been described in the English literature. This is the first report of Mantle cell lymphoma found in the hernia sac. This case illustrates the value of routine microscopic evaluation of hernia sacs found from inguinal/femoral herniorrhaphies, as it may be the primary presentation of an asymptomatic metastatic lymphoma. Additionally, it underscores the importance of the surgeon's role in screening hernia sacs if the practice of submitting only macroscopically abnormal specimens for microscopic evaluation is adopted.

Introduction

Mantle cell lymphoma accounts for 5-10% of all lymphomas, with a median age of 65 years at diagnosis. At the time of diagnosis, the lymphoma is typically found diffusely throughout the lymphoid tissue, and may be found in other tissues including the intestinal tract, skin and breast. While this type of lymphoma is responsive to chemotherapy, the nature of the disease tends to be aggressive, with a median survival of 3 years.[1] We present the case of a Mantle cell lymphoma found upon inguinal hernia repair, in which routine histologic evaluation of the hernia sac affected this patient's medical management. While the pathologist did note irregularity of the hernia sac, no macroscopic abnormality was observed intraoperatively. For this patient, routine histologic evaluation of the inguinal hernia sac allowed for the diagnosis and treatment of an aggressive lymphoma that may have otherwise remained undiagnosed.

Case Report

A previously healthy 55-year-old Chinese male presented with right groin pain and progressive swelling in the inguinal region of several months duration, with no prior history of hernia, heavy lifting or trauma. He reported no other symptoms including fatigue, night sweats or weight loss. Past medical history was notable only for a 15 pack-year history of smoking and hyperlipidemia for which he was taking atorvastatin. Past surgical history was positive only for wrist surgery. Family history was negative for any malignancy. Vital signs were within normal limits with a BMI of 25.2 and physical examination was notable only for a right-sided reducible inguinal hernia.

An inguinal hernia repair operation was subsequently scheduled, and was performed successfully using a polypropylene mesh plug, with no complications. The surgeon did not note any abnormalities of the hernia sac at the time of operation. The patient went home on the same day and recovered uneventfully.

The hernia sac, measuring 3.8 x 2.3 x 0.8 cm, was grossly described as an irregular portion of membranous, pink-tan tissue. Figure 1a demonstrates a low power hematoxylin/eosin (H&E) view of hernia sac connective tissue with massive lymphocytic invasion. Demonstrated here is the junction between the tumor/lymphoma and the underlying normal tissue it has invaded. Figure 1b depicts a closer view with H&E stain of the lymphocytes (a monotonous sheet of small round blue cells with scant cytoplasm), with a thick walled blood vessel in the upper right. Figure 1c shows positive immunostaining for CD 20 staining (brown) in a background stain of blue. Immunostaining was also positive for BCL-2 and cyclin D1. CD5 was weakly positive. Immunostains were negative for CD3, CD4, CD8, CD10, CD23 and BCL-6. These findings are consistent with a diagnosis of Mantle cell lymphoma.

Subsequent CT of the abdomen and pelvis with contrast demonstrated a 2.8 cm enhancing liver lesion at the dome of the right lobe, suspicious for tumor. There were also several smaller nonspecific nodules scattered throughout the liver. Retroperitoneal adenopathy and adenopathy around the celiac axis were noted. Specifically, there were several lymph nodes measuring up to 2.3 cm surrounding the celiac artery and a 5.1 cm ill-defined mass surrounding the infrarenal inferior vena cava.

CT scan of the chest showed multiple hilar, mediastinal and cardiophrenic nodes, as well as a 4.9 cm mediastinal mass. Positron-Emission Tomogram (PET) scan demonstrated multiple active sites of lymphoma from the neck to the inguinal region--including the supraclavicular areas, neck, mediastinum, stomach and retroperitoneum. The patient was started on a chemotherapeutic regimen of doxorubicin, cyclophosphamide, rituxamab and vincristine.

Discussion

According to the National Center for Health Statistics, over 700,000 inguinal hernia repairs are performed annually in the United States.[2] The vast majority of inguinal and femoral hernia sacs from these repairs are unremarkable upon routine histologic evaluation. In a study of over 22,000 inguinal hernia repairs at the Mayo Clinic, 0.07% were found to have metastatic tumors, with colon cancer being the most commonly implicated tumor. Forty percent were of gastrointestinal origin, 20% ovary, 13% prostate, 13% mesothelioma and 13% from unknown origin. The most common presenting symptoms were an inguinal mass and abdominal or groin pain.[3]

Overall, less than 0.5% of hernia sacs contain primary or metastatic tumors.[4] Kassan et al, in evaluating 1,020 inguinal and femoral hernias, questioned the cost-effectiveness of sampling macroscopically normal hernia sacs, reporting that only 3 specimens (0.098%) showed abnormal pathology while appearing normal at the time of operation. In a review of the literature, these authors also concluded that in the rare case of a malignant tumor, 73.3% were identified macroscopically.[5] Nicholson et al, in evaluating patients from 1950-1988, arrived at a similar conclusion that macroscopically normal hernia sacs did not warrant histologic evaluation.[3] Matthyssens analyzed routine specimens in general surgical procedures — specifically hemorrhoidectomies, cholecystectomies, appendectomies and inguinal hernia repairs between 1993 and 2002. In these cases, 1%

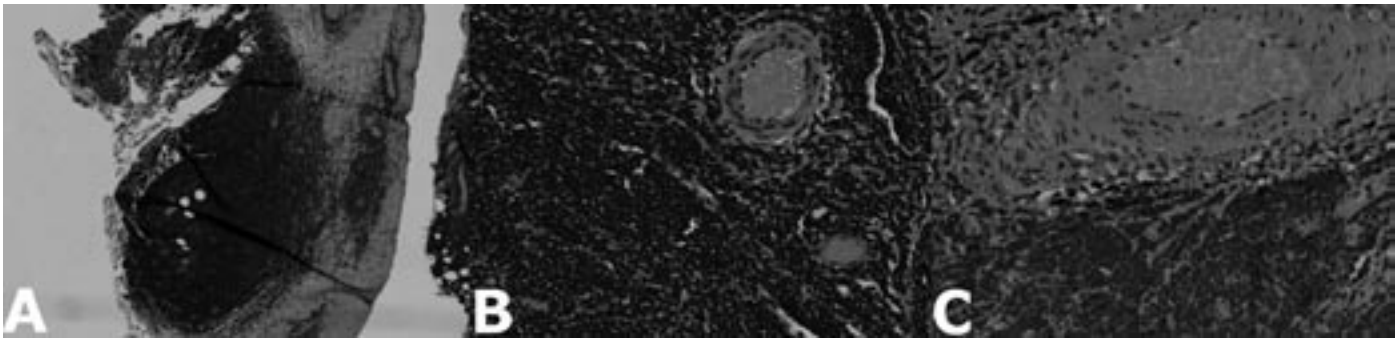

Figure 1.— Inguinal hernia sac with H&E staining under low power (a), high power (b), and CD20 immunostaining (c).

Table 1.— Lymphomas Mimicking or Presenting with Femoral or Inguinal Hernias

Author/Yr	Age/Sex	Hernia	Location	Gross Description	Final diagnosis
	55/M	Inguinal	Hernia sac	Irregular membranous, pink-tan tissue	Mantle cell lymphoma
Geuna/1982	46/M	Inguinal	Spermatic cord	2x2 cm mass	Lymphosarcoma (nodular, mixed histiocytic, lymphocytic lymphoma)
	58/M	Femoral	Femoral canal, internal opening	2x3cm mass	Lymphosarcoma (nodular well differentiated)
Kassan/1986	?	Femoral	?	Lymph node, grossly abnormal	non-Hodgkin's lymphoma
Connelly/1990	67/F	Femoral	?	Lymph nodes of "focal flesh-like areas"	Diffuse large cell lymphoma
	50/M	Inguinal	?	?†	Diffuse large cell lymphoma
	51/M	Inguinal	?	?†	Follicular mixed cell lymphoma
	60/M	Inguinal	?	?†	Follicular small cleaved cell lymphoma
	23/M	Inguinal	?	?†	Lymphocytic predominance Hodgkin's disease, nodular L/H
	40/F	*	?	?†	Follicular small cleaved cell lymphoma
	74/F	*	?	?†	Follicular mixed cell lymphoma
	76/F	*	?	?†	Sclerosing diffuse large cell lymphoma
Moller/1994	48/M	Inguinal	Spermatic cord	Nodular 3-cm tumor	High grade B cell lymphoma polymorphic centroblastic type

*Diagnosed initially as having an inguinal or femoral hernia; †Lymph nodes collectively described as light tan and homogenous, ranging 1.0 -7.0 cm

of hemorrhoidectomies, 0.4% of cholecystectomies and 0.1% of appendectomy specimens had unexpected malignant/premalignant findings on histologic evaluation but each of these had macroscopic findings suggestive of these abnormalities.[6] None of the 2000 hernia sac specimens had any gross or histologic abnormalities. They suggested that routine histologic examination in the absence of any gross abnormalities could be omitted. The US College of American Pathologists' statement in 1996 also recommended selective surgical specimen examination—reflecting on current trends of cost containment via practice guidelines, as well as the aim for more responsible and evidenced-based use of diagnostic testing.[7]

Older literature has advocated histologic evaluation of all hernia sacs, with many authors supporting routine examination to avoid overlooking an occult malignancy.[8-10] Roslyn et al, in 1200 inguinal and femoral hernorraphies from 1972-1978 noted that tumors of the hernia sac were often not diagnosed until pathologic evaluation, and argued for the need to microscopically examine all hernia sacs.[10] There is also evidence that a higher index of suspicion may be necessary in the context of enlarged lymph nodes found upon hernia sac evaluation. Connelly et al reviewed twelve patients with enlarged lymph nodes associated or presenting as inguinal or femoral hernias, and reported 7 of these patients as having non-Hodgkin's lymphoma and 1 with Hodgkin's lymphoma.[11] The authors cited special processing requirements and potential of misdiagnosis as reasons for having a higher index of suspicion for lymphoreticular disease when evaluating enlarged lymph nodes during hernia repair. Finally, Guena et al reported 2 cases of lymphosarcoma found upon hernia repair operation, and noted that the extreme variability in presentation of lymphosarcoma called for sampling of lymph nodes found during the course of a hernia operation.[12]

Twelve cases of lymphoma diagnosed at inguinal/femoral hernia repair have been described previously. Mean age of these patients was 54 years (range 23-76) with male predominance. The lymphomas presented as a unilateral groin mass, with most patients presenting asymptomatically. A summary including the present case is provided in Table 1. Primary malignant spermatic cord tumors often present as inguinoscrotal hernias, with primary spermatic lymphomas usually presenting either as a tumor in the groin or upper part of the scrotum.[13] In a review of 11 cases of spermatic cord lymphomas, Moller reports that three cases were initially misdiagnosed as hernias.[14] Our literature review includes primary spermatic cord lymphomas that presented as inguinal or femoral hernias and were discovered upon herniorrhaphy. It does not include spermatic cord tumors presenting as scrotal masses.

In summary, we report the case of Mantle cell lymphoma discovered incidentally at inguinal hernia repair. Literature review

indicates that occult malignancies diagnosed from routine histologic evaluation of inguinal and femoral hernia sacs is a rare occurrence and gross examination of the specimen would likely have identified theses malignancies. However, this patient's hernia sac was characterized by very subtle irregularities that were only detected upon histologic evaluation. This case supports routine histologic evaluation of hernia sacs. However, in cases where only selective microscopic evaluations are performed, the surgeon should meticulously inspect all hernia sacs and submit specimens with even subtle irregularities. As lymphoreticular disease can present variably and includes a broad differential of benign and malignant processes, the specimen should be submitted to pathology if any suspicious lymph nodes are encountered or if lymphoreticular pathology is already suspected. Finally, if routine histologic evaluation of all inguinal and femoral hernias is not feasible due to cost concerns a limited microscopic evaluation by pathology on grossly normal appearing sacs would reduce cost without compromising the identification of occult malignancy.

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A Case Report of Urachal Abscess: A Rare Differential in Adult Abdominal Pain

Chelsea Walker MD

Abstract

A 59-year-old woman presents with decreased appetite and abdominal pain. Her symptoms lead to lethargy and weakness. Abdominal pain is a common presentation in the primary care and emergency room setting. She was initially diagnosed with an abscess and treated with antibiotics and drainage. Upon further evaluation and cystoscopy she was discovered to have a urachal cyst. Urachal cysts are extremely rare and even more uncommon in adults, as it is usually diagnosed in children. It is an important diagnosis not to miss in the differential of adult abdominal pain as surgical intervention is often necessary for treatment. This case highlights urachal cyst as a rare and serious differential of adult abdominal pain.

The urachus is an embryologic tract that connects the allantosis with the urinary bladder, which degenerates after birth into the medial umbilical ligament. Normal obliteration of the urachus is incomplete or absent in some people, and usually presents in children.[1] Urachal anomalies and infections were once a common cause of illness and death among neonates throughout the world.[2,3] But it is a rare pathologic disease entity in the adult, which may present only with abdominal pain.[4] Because adults may present without erythematous periumbilical tissue or exudates, its presence cannot be ruled out by physical exam and must be considered as a rare differential for abdominal pain.[4] This is a report of a woman with a case of urachal abscess, who presented with abdominal pain for 1 month.

A 59-year-old woman had the insidious onset of decreased appetite and vague abdominal pain, which lead to lethargy and weakness. Eventually the patient remained stationary for 2 days and EMS was subsequently activated. The pain was described as diffuse, but greatest in the LUQ. It was periodically stabbing and waxed and waned. The patient felt her abdomen had become protuberant over the span of several months and she had a constant feeling of fullness. She had fever and some recent dysuria in addition to her chronic urinary incontinence. Her review of systems was also significant for weight loss of greater than 10 pounds, excessive thirst, and decreased oral intake. She denied any nausea, vomiting, diarrhea, melena, and hematemasis. She was diagnosed with hypertension in the past, but denied other comorbid diseases including: asthma, emphysema, cancer, diabetes, hypercholesterolemia, kidney disease, liver disease, ulcers, seizure, stroke, and HIV. Her surgical history was significant for an appendectomy, right hip replacement in 1984, and back surgery in 1999. She reported an allergy to morphine and was on no medications. She admitted tobacco dependence and social alcohol use, but denied any illicit drug use. On physical examination, blood pressure was 108/66 mm Hg, the body temperature was 99.5 °F, the heart rate was 102 beats/min, and the respiratory rate was 20 breaths/min. The abdomen was soft, but tenderness and left sided voluntary guarding was found without a palpable mass. Bowel sounds were normactive. Rectal exam was performed with no masses palpated.

Laboratory data revealed a white blood cell count of 26.1 x $10^3/\mu L$, hemoglobin level was 9.1 g/dL, and platelet count of 919 x $10^3/\mu L$. Blood biochemistry revealed sodium 136 mEq/L, potassium 2.3 mEq/L, chloride 83 mEq/L, bicarbonate 43 mEq/L, BUN 30 mg/dL, creatinine 0.8 mg/dL, glucose 102 mg/dL, and calcium 7.8 mg/dL. Liver function studies uncovered a total protein of 8.6 g/dL, ALT 29 U/L, AST 31 U/L, Albumin 2.2 g/dL, total bilirubin 0.9 mg/dL, direct bilirubin 0.7 mg/dL, and alkaline phosphatase 130 U/L. Her urine contained 5-10 white blood cells, with a specific gravity of 1.010.

Computed tomography of the pelvis revealed a 10 x 8 cm fluid collection immediately above the bladder containing air, suspicious for an abscess, which extended up to the region of the left rectus muscle. This was associated with a very thickened bladder wall. Within the left rectus muscle a 3 x 3.5 x 1 cm fluid collection with air was identified and also suspicious for an abscess.

The patient was admitted and started on IV antibiotics. A cystourethroscopy was performed which did not reveal any obvious communications from the bladder to the abscess, however, the bladder was very trabeculated and distorted. Subsequently both abscesses were incised and drained under CT guidance. Approximately 120 mL of foul smelling, viscous, brown, inflammatory fluid was initially removed. Microbiology of the fluid reported Klebsiella pneumoniae, Escherichia coli, Enterococcus avium, and Peptostreptococcus. The larger abscess anterior to the bladder underwent flushing with 30 mL saline every 3 hours after placement of a pigtail drainage catheter. Drainage fluid slowly became more serosanguenous over the period of one week. Later abscessogram with revisualization of the anterior bladder abscess cavity revealed connection to the smaller left rectus abscess and direct fistulous communication with the bladder.

Discussion

Urachal remnants can present as one of four primary recognized pathologies; patent urachus, urachal sinus, vesicourachal diverticulum, and urachal cyst. Patent urachus involves free communication between the bladder and the umbilicus, and presents with urine leakage through the umbilicus or occasionally with a urinary tract infection. Urachal sinus and vesicourachal diverticulum are variations in incompletely patent connections, the former communicates with the umbilicus, but not the bladder. Conversely, a vesicourachal diverticulum communicates between the urachus and the bladder, but not with the umbilicus. Urachal cysts are the last and most common type of urachal anomalies.[5] It is an incompletely patent urachus that is isolated from both bladder and umbilicus. It can be argued that this case report was a vesicourachal diverticulum that developed into a urachal abscess, as a patent connection between the abscess and the bladder was elucidated.

Though urachal anomalies are rare,[6] the clinician must be highly suspicious as urachal cystic tissue accounts for 20-40% of bladder adenocarcinomas.[7] Because of the relative rarity of this disorder there are frequent misdiagnoses.[8] Urachal cysts may present only with abdominal pain and it should at least be considered in the differential diagnosis. However, persistent urachal pathologies may

mimic a large number of conditions; as presentation sometimes includes mild periumbilical erythema, umbilical discharge of urine or pus, urologic complaints consistent with a urinary tract infection, symptoms suggestive of an acute surgical abdomen, or a midline mass. Urachal cysts, especially if infected, often present with fever, leukocytosis, nausea, vomiting, and a mass. Thus they mimic an acute abdomen and are frequently misdiagnosed as acute appendicitis.[1,5] The differential of urachal abscess should include hematoma, urachal carcinoma, sarcoma of the abdominal wall, peritoneal tumor, metastatic carcinoma, ventral or umbilical hernia, and inflammatory lesions.[4,9,10] History taking, a detailed clinical exam, and computed tomography may aid in raising clinical suspicions. Appropriate treatment includes antibiotics, percutaneous drainage, and eventual surgical excision because of the high incidence of recurrences.[11,12] It is evident that urachal anomalies should be considered in the differential of abdominal pain to ensure timely and appropriate management.

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Diversifying Residents' Outpatient Psychiatry Experience: A Contemporary Model for Academic Outpatient Psychiatry Clinics

John Huh MD and Deborah A. Goebert DPH

Abstract

A diversified, outpatient experience is an important part of psychiatric training, yet challenging to attain. We describe a multiple, subspecialty psychiatry clinic model for 3rd year psychiatry residents. Evaluation findings based on its initial implementation indicated improved resident supervision, better therapeutic alliance and an overall increase in satisfaction. This model facilitates resident exposure to diverse patients and treatment modalities as well as faculty development of expertise. It also promotes academic training excellence.

Introduction

Although the majority of psychiatric practice involves the outpatient setting, the bulk of outpatient psychiatry training lasts only one year of residency. The Accreditation Council for Graduate Medical Education (ACGME) requires residents to have an outpatient experience with a wide variety of disorders, patients, and treatment modalities.[1] Residents must treat a diverse population, have a focused psychotherapy experience and be closely supervised with graded autonomy.

Residents of many specialties are often responsible for poor and/or underinsured patients, irrespective of service location. Many patients in a resident's outpatient clinic tend to be severely ill, have a chronic condition, have numerous social problems and have chaotic lives. This often results in a distorted and skewed educational experience for the resident. Furthermore, multiple factors make it difficult for academic outpatient clinics to compete with private practitioners. Difficulties in outpatient teaching in psychiatry are thought to include issues of patient care, institutional constraints, and the unique nature of the doctor–patient relationship.[2] Much of the care in an academic medical center is completed by residents with attending supervision. The transient nature of residents often disrupts the patient physician relationship. The supervisory posture of the faculty attending impairs the patient attending relationship. Therefore, diversifying the composition of outpatients poses a challenge for academic psychiatry.

There have been no publications on models for academic psychiatry outpatient clinics. This article describes a developing curriculum model for 3rd year psychiatry residents in a full-time, year-long outpatient clinic setting that uses multiple psychiatry sub-specialty clinics to provide a diversified educational experience. Each subspecialty clinic focuses on a major diagnostic area, a demographic group or a treatment modality.

Methods

The major outpatient training goals are competency in outpatient medication management and in psychotherapy. The goals of this new specialty clinic model are outlined in Table 1.

Previous training model: The clinic had been structured as a general psychiatry outpatient clinic with residents assigned patients randomly. The resident would provide all of the services that the patient needed. Many of the residents' clinic patients were lower functioning, had more chronic and severe illness, along with more chaotic lives. Resident caseloads were filled with supportive psychotherapy. The psychiatry resident doing supportive psychotherapy simply provides an empathic environment where the patient is listened and helps the patient problem solve day to day conflicts. Technically, it is a much less advanced skill than other therapies such as Cognitive Behavioral Therapy, or Insight-Oriented Psychotherapy. Supportive psychotherapy is an essential basic skill to have, but the large volume took time away from other educational experiences. Several university faculty were assigned to the clinic part-time to supervise the residents' training. Often, the resident evaluated the patient independently, and then presented the key elements and treatment plan to the attending. The attending offered a few "pearls

Table 1.— Goals and Objectives of Specialty Clinic Model

Component	Goals and Objectives
Education	a) Maximize resident outpatient training given time constraints i) Facilitate access to those patients that are lacking in the residents' educational experience. ii) Improve access to those patients that the residents have a deficit of educational experience iii) Balanced diversity of (1) patient diagnosis and treatment of common and major psychiatric disorders (2) age (3) socioeconomic status iv) Focus psychotherapy training v) Focus medication management training
Clinical Service	a) Improve faculty and patient continuity of care b) Improve community's perception of the quality of care. i) Provide highest level of care. c) Expand clinic volume
Research	a) Facilitate research opportunities
Faculty Development	a) Facilitate faculty development into sub-specialists
Adaptation to the Marketplace and Fiscal Goals	a) Incorporate flexibility to add or remove specialty clinics b) Improve community's perception of the quality of care. i) Attract higher functioning patients

of wisdom" and then they both returned to the patient to review the key findings and the treatment plan. This created several problems. First, depending on when the patient came, the patient may have seen a different attending each time for several visits. This created a lack of continuity and impaired any attending-patient therapeutic alliance. This also made it difficult for the attending to evaluate the resident's performance over a longitudinal period with the same patient. Secondly, at times, different attendings had differing views on the patient's treatment plan creating additional confusion for the resident. Finally, this traditional model maintained faculty as generalists and did not encourage specialized expertise within a more focused area of psychiatry. Geriatric and child psychiatrists were providing care outside their specialty and functioned as generalists. Even academic general psychiatrists need to have an area of interest and expertise. The generalist model discouraged development of this expertise.

New Specialty Clinic Model: ACGME requires faculty schedules to be structured to provide residents with continuous supervision and consultation.[1] This new specialty clinic model consists of using existing outpatient faculty staff to create various specialty clinics. Each faculty is assigned to a specialty area aligned with their area of interest. The larger clinic is divided into the two major treatment modalities; medication management and psychotherapy. Patients are scheduled in the specialty clinic that best match their demographic, diagnosis, or treatment modality. The prospective patient is offered the soonest available appointment within that specialty clinic. If that specialty clinic has a low volume of patients, the prospective patient is able to get an appointment quickly. If that specialty clinic has a high volume of patients, the prospective patient may have a longer delay with the initial appointment.

Medication Management Clinics: Medication management clinics were further subdivided into separate half-day specialty clinics. Each half day became a separate specialty medication management clinic which was matched to faculty members' area of interest. A medication management specialty clinic was formed in 4 major areas of psychiatry to optimize third year training: mood disorders, anxiety disorders, psychotic disorders, and geriatric disorders.
Weekly Psychotherapy Clinic: ACGME requires training in specific types of psychotherapy. The weekly psychotherapy clinic focuses the residents' training on more intensive psychodynamic training and cognitive behavioral therapy. Specific patients are referred to this clinic based upon the advanced training needs of the residents. The remainder of psychotherapy patients were transferred to a clinic psychotherapist.

Results

Initial feedback shows that residents and patients appreciate the improved continuity of attending involvement and attendings feel more competent supervising and teaching within their area of interest and their developing area of expertise. Patients often feel that the attending is more involved with their care and the result is a stronger patient physician relationship with the attending. When the residents rotate out at the end of the academic year, patients are less anxious about the residents' leaving due to the maintenance of the attending-patient relationship.

The patient-resident-attending continuum of care facilitates the evaluation of resident progress toward ACGME core competencies. It allows for more active supervision of the resident with more direct observation of the residents' clinical skills and their thinking process. Closer attending supervision uncovered areas of weakness. As a result, additional seminars and supervision have been added to facilitate the application of the residents' knowledge to the outpatient setting.

Discussion

This specialty clinic model for outpatient psychiatry allows for administration to have more control of the residents' outpatient training experience. The patient populations can be defined and more controlled to optimize the educational experience. These specific clinics were chosen because they are felt to be the major areas to focus resident training, but the model is flexible. Different specialties may be chosen, and residents may rotate through different specialty clinics at different intervals, rather than annually. This model has allowed for a more diverse, effective, and efficient resident education experience, has increased patient volume and has diversified the patient mix. It has facilitated the development of faculty into more specialized experts. Subspecialized faculty are able to focus on their subspecialty, generalist are able to further develop an area of interest into an area of expertise, such as mood, anxiety, psychosis, or psychotherapy.

While extensive outcome data is absent from this concept paper, continued inquiry is underway, including evaluation of measures for resident education and clinical skills in areas of patient care, medical knowledge, practice-based learning, and systems based practice. Patient and resident satisfaction, quality of care, clinic's overall patient level of functioning, clinic volume, payer mix, and faculty development are important measures to examine in ongoing evaluation of psychiatric training. These data are not available at this time.

While this paper focuses on a psychiatry clinic, this is a model that can be generalized to other specialties with a general outpatient clinic. For example, a diabetic patient could be managed in a diabetes clinic with an endocrinologist or a specialized generalist rather being part of a panel of patients in a general medicine clinic. This may provide for better patient care and better resident training. Academic outpatient clinics must be adaptable to the environment to maximize existing resources and provide a rich and diverse training experience for residents. This model begins to address the goals of incorporating various needs including clinical service, education, research, faculty development, and adaptation to the marketplace. As medicine becomes increasingly complex, the need for specialized faculty to train residents becomes even more important. This model facilitates faculty development of expertise and academic training excellence.

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Intussusception and Colonic Ischemia in Portal Hypertension: A Case Report

Timothy P. Plackett DO; Lisa C. Coviello DO; Christina M. Belnap MD; Kimberley J. Phillips MD; Ronald A. Gagliano, Jr MD; and Carrie A. Sims MD

Abstract

Intestinal intussusception is a relatively uncommon occurrence in adults in comparison to pediatric patients. While the management of intussusception in children is frequently decompression of the involved segment, adults often require surgical resection secondary to frequent association with neoplastic lead points. A less common reason for surgical removal of an intussuscepted segment in adults is the development of ischemic colitis.

The authors present an unusual case of adult intussusception with associated ischemic colitis in a patient with portal hypertension awaiting liver transplantation. Portal hypertension is associated with the development of a microvascular colopathy. This condition may serve as the lead point for intestinal intussusception. Furthermore, the vascular changes of portal hypertension leave the bowel unable to respond appropriately to the threat of ischemia. The colopathy of portal hypertension may have predisposed our patient to the development of colonic intussusception by submucosal vascular engorgement; it may have also rendered the intussuscepted segment more susceptible to the development of ischemia.

Introduction

Intussusception is a relatively uncommon disease in adults, accounting for approximately 0.005% of all adult hospital admissions.[1] When it does occur, it is usually associated with an underlying neoplasm which serves as the lead point for the intussuscepted segment of intestine.[2] However, in 5-10% of cases, the cause of intussusception is considered idiopathic. We present a presumptive case of idiopathic intussusception in a patient with end-stage liver disease and portal hypertension. Portal hypertension may have contributed to the development of vascular changes that served as a lead point and ultimately resulted in the development of ischemic colitis.

Case Report

A 57-year-old man with end-stage liver disease and cirrhosis secondary to hepatitis C infection presented to the emergency department complaining of right lower quadrant abdominal pain, nausea and vomiting. On the initial physical examination, he was afebrile. His vital signs were remarkable for diastolic hypertension and mild tachypnea. His abdomen was distended and tender to palpation in the lower quadrants without peritoneal signs. The initial complete blood cell count and metabolic profile were normal. Additional laboratory results included an albumin of 3.8 g/dL, total bilirubin of 1.4 mg/dL, INR of 1.8, and ammonia of 24 μmol/L. A noncontrast CT scan was obtained, demonstrating mild ascites, a shrunken and nodular liver, splenomegaly, intussusception of the ascending colon, and a right inguinal hernia with possible incarceration (Figure 1). A second CT scan with oral and intravenous contrast was obtained 5 hours later which showed resolution of the intussusception, thickening of the ascending and transverse colon with thumbprinting, and a reduced right inguinal hernia sac (Figure 2). A surgery consult was then obtained.

Figure 1.— Sagital reconstruction on a non-contrast CT scan of the abdomen and pelvis demonstrating an intussuscepted segment of bowel.

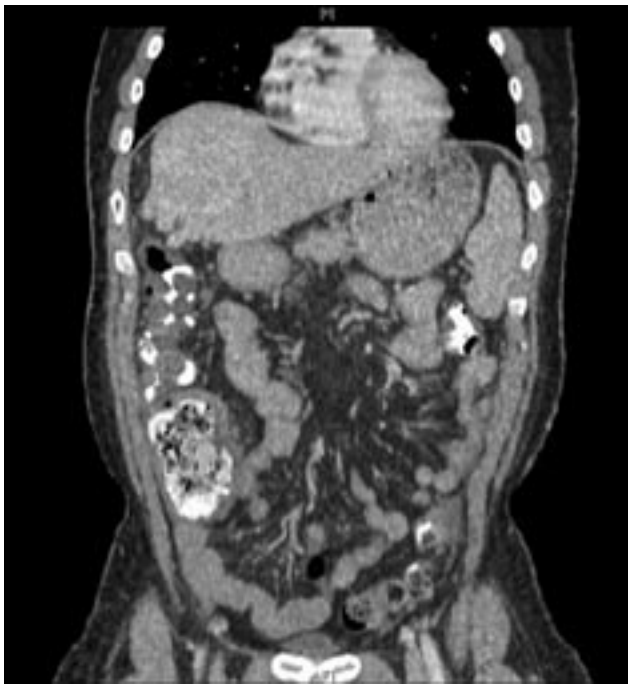

Figure 2.— Sagital reconstruction of a CT scan with intravenous and oral contrast taken 5 hours after the previous CT scan, demonstrating the absence of intussusception and a thickened bowel with thumbprinting.

On examination, his right lower quadrant and flank tenderness without peritoneal signs persisted. He was started on broad spectrum antibiotics and, given CT evidence of resolution and the lack of an identified lead point, he was admitted to the hospital for further observation and diagnostic workup. Shortly thereafter, he became hemodynamically unstable with a blood pressure of 84/40 mmHg and pulse of 91 beats per minute. His temperature was 38.8 °C. The physical examination was remarkable for diffuse tenderness to palpation with peritoneal signs. Laboratory examination demonstrated a rising white blood cell count (from 3.8 to 10.6 x 10^9 cell/L), a lactate of 3.7 mmol/L, and metabolic acidemia with an arterial pH of 7.33. Given his sudden instability and deterioration in physical exam, the patient underwent an exploratory laparotomy.

On exploration, he was noted to have a moderate amount of clear ascites, large peritoneal and retroperitoneal varices (including colonic varices), and ischemic changes with patchy necrosis extending from the cecum to the hepatic flexure. The superior mesenteric artery was noted to have a strong pulse and the small bowel was normal in appearance. A right hemicolectomy was performed with a stapled primary anastomosis. After closure of the abdomen the patient returned to the ICU for further care.

Histologic examination of the resected right colon demonstrated areas of submucosal hemorrhage (predominantly in the distal colon segment) (Figure 3) with areas of mucosal edema, vascular congestion, and sloughing of the superficial mucosa.

His postoperative course was complicated due to issues related to the patient's underlying end-stage liver disease and included ascites, thrombocytopenia, hypoalbuminemia and coagulopathy. In addition, on post-operative day four he developed atrial fibrillation that was controlled medically. The patient was discharged from the hospital 10 days after his operation and has subsequently been replaced on the waiting list for liver transplantation.

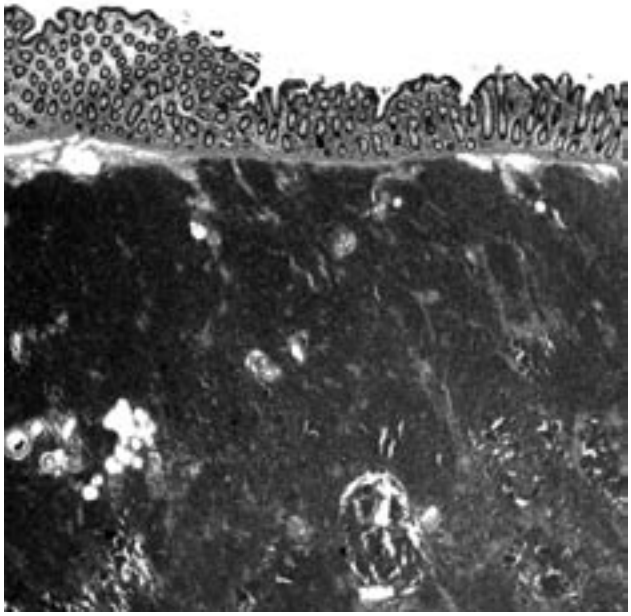

Figure 3.— Histological examination of the large bowel, demonstrating submucosal hemorrhage and patchy areas of mucosa epithelial sloughing.

Discussion

Intussusception involves the telescoping of a segment of the gastrointestinal tract into an adjacent segment. While it is relatively common in children, adult intussusception is uncommon and represents 5%-16% of all cases of intusssusception.[3,4] The average adult patient is between 50 and 60 years old, although an age range of 18 to 90 has been reported.[5-8] The typical patient presents with vague, non-specific abdominal symptoms. The most common complaints include abdominal pain (71-100%), nausea and vomiting (36-82%), bleeding or melena (18-29%), and constipation (4-29%).[6,7,9-11]

Overall, there is a higher frequency of small bowel versus large intestine involvement in adult intussusception.[5,9] The aggregate results of multiple case series suggest that small bowel intussusception represents 50% of adult cases, ileocecal and ileocolic intussusception representing 18% of cases, and colocolic intussusception involving 32% of cases.[6-10] In cases of colocolic intussusception, which occurred in our patient, involvement of the ascending colon is more common than the descending or sigmoid colon.[10]

A clearly identified lead point can be ascertained in 90% of adult patients.[4,8,11] Neoplasias account for more than two-thirds of cases, of which at least 60% are malignant.[2] Additional sources of lead points have included a Meckel's diverticulum, ileal duplications, inflammatory pseudopolyps, arteriovenous malformations, and Dieulafoy lesions.[5,6,10,12,13] Lead points have also been attributed to localized inflammatory changes caused by tuberculosis, cytomegalovirus, campylobacter, and Crohn's disease.[2,6,9]

Although no clear lead point was discerned on gross examination of the resected ileocolonic segment, histologic examination demonstrated areas of vascular congestion in the ileocecal region and a distal submucosal hematoma. Vascular congestion may have served as a lead point facilitating the development of intussusception.

The vascular changes described in this patient are a part of a colopathy associated with portal hypertension. Such vascular changes include colorectal varicies, angiodyplasia-like lesions, and telangiectasias.[14] In addition to the vascular abnormalities that have been reported during colonoscopy, colonic biopsies of patients with portal hypertension demonstrate a significantly increased incidence of dilated and congested capillaries.[15] Moreover, as the severity of cirrhosis worsens, the walls of these dilated and congested capillaries become progressively thicker. Although our patient did not have clear histologic evidence of thickened vessels, the large areas of hemorrhage and congestion may have obliterated such changes.

Interestingly, the colopathy of portal hypertension is more common on the right side of the colon and does not appear to affect the left side unless the right is also involved.[16] It has been hypothesized that this difference relates to the different pathways of venous drainage of the right and left colon. The left colon has a greater number of collateral pathways through which to decompress the increased pressure and venous flow. This is due to its drainage through the splenic vein and the multiple tributaries feeding into the splenic vein. Because the right colon cannot dissipate the increased pressure in a similar manner, it is more vulnerable to the described vascular changes and may partially account for the increased incidence of ascending colon intussusception.

Surgical intervention for adult intussusception is almost always pursued given the high incidence of associated malignancy. However,

in a small subset of adult patients emergent surgery is necessitated by the development of ischemia. Ischemia likely results from strangulation of the invaginated mesentery and compression of intra-intestinal vessels. Given that not all adult patients with radiological evidence of intussusception develop ischemia,[17] mere invagination and compression of the blood vessels may not be sufficient to cause vascular compromise. Prolonged compression and loss of the normal response to decreased perfusion are probable aggravating factors. The normal response to ischemia is vasodilation and increased oxygen extraction by the tissue,[18] but patients with portal hypertension have little reserve with which to meet the physiologic demands of an ischemic challenge. The vasculature of these patients is functioning near physiologic maximum at baseline. In animal studies portal hypertension is associated with the dilation of third order arterioles making it difficult to further dilate in response to an ischemic challenge.[19] In patients with portal hypertension, the capillaries are significantly more dilated than in non-portal hypertensive subjects. Additionally, the capillary walls within the colon are nearly twice as thick as those found in normal colon.[15] This combination of thickening and dilation may prevent the capillaries from further dilating in response to decreased perfusion. Furthermore, splanchnic flow is already increased in chronic portal hypertension,[19-21] and this increased blood flow likely results from increased vessel recruitment, thereby limiting the number of potentially recruitable vessels able to respond during periods of ischemia. Lastly, splanchnic oxygen extraction is increased by approximately 40% over baseline in chronic portal hypertension,[22] leaving less oxygen available for further extraction in the face of ischemia.

In addition to an impaired response to ischemic challenge, the intestines of portal hypertension patients may be intrinsically more prone to developing ischemia. In an experimental study of portal hypertension in rats, the intestinal perfusion pressure was decreased by 14 mmHg in rats with portal hypertension when compared to controls.[23] A decreased colonic perfusion pressure at baseline may leave the tissue more susceptible to the effects of a precipitous drop in arterial inflow.

Despite the theoretical increased risk, intussusception in association with portal hypertension has been described infrequently. Sandrasegaran and colleagues briefly mention three cirrhotic patients in a case series of 24 patients with intussusception, but do not comment on any possible relationship between the two conditions.[24] Fischer and Friedel also report two cases of intussusception in portal hypertensive patients,[25] but do not describe a potential relationship between the two conditions. With few case series reporting the presence or absence of comorbid conditions, and only one report of the two diseases occurring in tandem, it remains unknown whether or not portal hypertension is a risk factor for developing intussusception in adults. While it is difficult to determine whether or not our patient's idiopathic intussusception was secondary to his portal hypertension, the vascular changes associated with end-stage liver disease provide an intriguing possible mechanism for this rare clinical phenomenon. We believe that in this patient a pre-existing portal hypertensive colopathy served as a lead point for intussuscpetion and the subsequent intussuscpetion resulted in localized ischemia.

The views expressed in this manuscript are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

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Disparities in Health, Obesity and Access to Care Among an Insured Population of Asian and Pacific Islander Americans in Hawai'i

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Abstract

Objective: *To examine differences in health status, obesity, and access among Asian and Pacific Islander Americans in Hawai'i using data from a 2007 health plan survey, including Caucasians, Puerto Ricans, American Indian and Alaska Natives, Chinese, Filipinos, Japanese, Koreans, Native Hawai'ians, Samoans, and Other Pacific Islanders.*

Methods: *Data were collected through a stratified random sample of adult members of a health plan in Hawai'i (n=119,563) who saw a physician in the past 12 months. Multivariable logistic and ordinary least squares regression analyses were used to examine racial/ethnic differences in health status, access, and obesity and the impact of obesity and access on health status, after controlling for age, gender, and education.*

Results: *The highest obesity rates were found among Samoans (50%), Puerto Ricans (37%), Native Hawai'ians (36%), and Other Pacific Islanders (35%). Puerto Ricans and Samoans reported the highest number of poor physical health days (5.4). Samoans reported the highest number of poor mental health days (4.4). Obesity had a stronger impact than access on self-reported health status.*

Conclusion: *Samoans had the highest rate of obesity, low health ratings, and a high number of days of poor health. Targeted interventions may be needed for this group.*

Introduction

Eliminating health disparities was one of two main goals stated in Healthy People 2010.[1] A critical step in eliminating disparities involves obtaining baseline data for disaggregated Asian and Pacific Islander American sub-groups.[2] According to the year 2000 census, approximately half of Hawai'i residents were Asian and Pacific Islander Americans. Hawai'i's large Asian and Pacific Islander population, combined with its ethnic diversity, makes it an ideal setting to examine health disparities among Asian and Pacific Islander Americans. Rather than lumping all Asian and Pacific Islander Americans together, it is important to examine Asian and Pacific Islander sub-populations separately, due to substantial differences within the Asian and Pacific Islander American population related to obesity, health status, and healthcare access.

The goals of this study were: 1) to examine differences in health status, obesity, and access to care among Asian and Pacific Islander American subgroups compared to other ethnic groups in an insured population in Hawai'i and 2) to examine the impact of ethnicity, obesity, and access to care on self-reported health status.

Methodology

Study population: In the spring of 2007, a survey was sent to a random sample of adult members of a large health plan in Hawai'i (n=119,563) who had seen a physician in 2006. The response rate was 41%. All data were de-identified.

Patient characteristics: Information was obtained for age, gender, education, health status, and ethnicity. For ethnicity, members were asked to check all that apply from a list of 19 ethnic groups. These categories were chosen to be consistent with the Hawai'i Department of Health's Hawai'i Health Surveillance Program. In most cases, members who marked more than one race or ethnicity were categorized as 'mixed.' The exceptions were that any member who marked Hawaiian was classified as Hawaiian. Data were displayed for the 10 largest groups, including Caucasians (n=8264), Puerto Ricans (n=275), American Indian and Alaska Native (n=472), Chinese (n=2853), Filipino (n=4576), Japanese (n=15182), Korean (n=705), Native Hawai'ian (n=4901), Samoan (n=169), and Other Pacific Islanders (n=305). All others were grouped as 'other race or ethnicity' and excluded from these analyses.

Obesity: Members were also asked to report their height in feet and inches and their weight. Body Mass Index was calculated from these self-reported measures. Obesity was defined as having a Body Mass Index greater than 30 kg/m^2.

Access to Care: Access to care was measured using two questions. The items asked members how often they got an appointment for regular or urgent care as soon as they wanted. The response set was a 0 to 10 scale. Responses to the two questions were averaged to obtain an overall access score. For the multivariate analyses, we divided access into three categories. Top access indicated that the member rated their access 10 out of 10 on both questions. Medium access was defined of having an average access of 7 to 9.9. Mean scores below 7 were categorized as poor access. These categories were defined based on the distribution of data with 45% of members having top access scores, 25% having medium access scores and 22% having low access scores.

Health Status Questions: Health status measures included self-reported healthy days, developed by the Centers for Disease Control.[3] Members were asked how many days during the past month was their physical or mental health not good. In addition, members were asked to rate their health as poor, fair, good, very good, or excellent.

Statistical analyses: We examined the characteristics of patients related to health status, obesity, and access to care. Multivariable logistic and ordinary least squares regression analyses were used to examine racial and ethnic differences in health status and obesity and the impact of ethnicity, obesity and access on health, after controlling for age, gender, and education. Terms examining interaction between ethnicity and obesity were tested, but dropped from the models due to lack of statistical significance. Models were estimated using Stata 9.0 (College Station, Texas).

Results

Patient characteristics: Demographic characteristics differed by race and ethnicity with Japanese [mean age 65 (STD 16)] and Chinese [mean age 63 (STD 17)] members being the oldest and Samoans [mean age 47 (STD 15)] and Other Pacific Islanders [mean age 49 (15)] being the youngest (Table 1). Education level differed con-

Table 1.— Racial and ethnic differences in patient characteristics, health status, and obesity.						
Race/ Ethnicity	**Age [Mean (std dev)]**	**Female (%)**	**Days of Poor Physical Health [Mean (std dev)]**	**Days of Poor Mental Health [Mean (std dev)]**	**Very Good or Excellent Health (%)**	**Obese (%)**
Caucasian (n=8264)	59 (15)	62%	3.7 (7.5)	2.6 (6.4)	56%	18%
Puerto Rican (n=275)	62 (15)	62%	5.4 (9.0)	3.9 (8.0)	34%	37%
American Indian or Alaska Native (n=472)	53 (15)	70%	4.9 (8.2)	3.9 (7.9)	53%	26%
Chinese (n=2853)	63 (17)	62%	3.1 (6.8)	1.8 (5.2)	38%	7%
Filipino (n=4576)	56 (17)	66%	3.5 (7.3)	2.3 (6.3)	38%	14%
Japanese (n=15182)	65 (16)	63%	3.4 (7.3)	1.9 (5.7)	33%	12%
Korean (n=705)	60 (17)	73%	4.0 (7.5)	2.7 (6.4)	32%	5%
Native Hawaiian (n=4901)	54 (17)	66%	4.1 (7.7)	3.0 (7.0)	36%	36%
Samoan (n=169)	49 (15)	59%	5.4 (8.3)	4.4 (8.1)	38%	50%
Other Pacific Islander (n=305)	47 (16)	64%	4.1 (8.0)	3.0 (6.7)	42%	35%

siderably with Caucasians, American Indians/Alaska Natives, and Chinese being the most likely to have post high school education. Puerto Rican, Japanese, and Samoan members had least amount of education.

Obesity: The prevalence of obesity differed considerably between racial and ethnic groups. Only 5 percent of Koreans and 7 percent of Chinese were obese, compared to 50 percent of Samoans (Table 1). Ethnic differences in obesity persisted after adjustment for other factors. After controlling for age, gender, and education level, the groups with the highest odds of obesity were Samoans (OR=2.8 relative to Caucasians), Native Hawaiians (OR=2.1) and Puerto Ricans (OR=2.0, Figure 1).

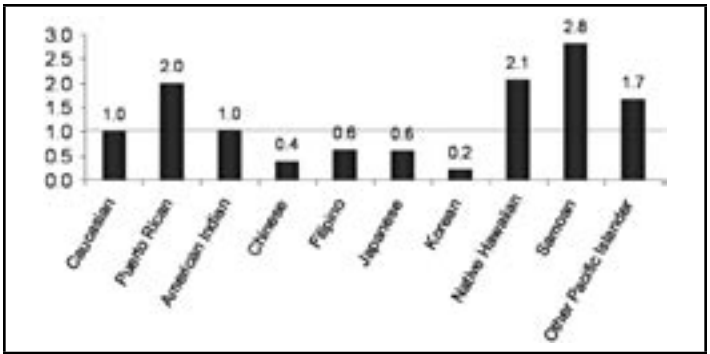

Figure 1.— Odds Ratio of Obesity by Race/Ethnicity, Adjusted

p<0.05 for all expect American Indian; *Adjusted for age, gender, and education

Health status: There were striking differences in health status ratings related to race and ethnicity (Table 1, Figure 2). Approximately 56 percent of Caucasians rated their health as very good or excellent, compared to 32 percent of Koreans, 33 percent of Japanese, and 34 percent of Puerto Ricans (Table 1). After adjustment, Koreans were least likely to report being in very good or excellent health (OR 0.46 relative to Caucasians, Figure 2). Japanese, Native Hawai'ians, and Filipinos were the next lowest groups in terms of self-reported health status. Groups with best self-reported health status were Caucasians and American Indian/Alaska Natives.

Puerto Ricans and Samoans reported the highest number of poor physical health days in the past 30 days (5.4), followed by American Indian/Alaska Native (4.9 days, Table 1). Chinese (3.1 days), Japanese (3.4 days), and Caucasians (3.7 days) had the lowest number of poor physical health days.

Samoans also reported the highest number of poor mental health days (4.4), followed by American Indians/Alaska Natives and Puerto Ricans (3.9 days). Chinese and Japanese had the lowest number of poor mental health days, at 1.8 and 1.9, respectively.

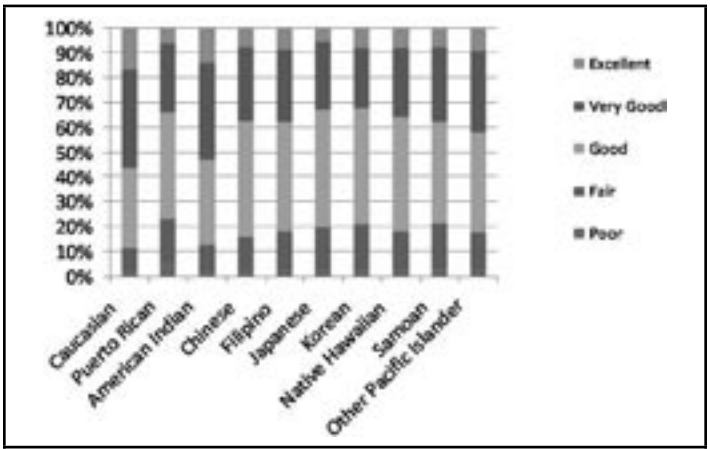

Figure 2.— Patient Ratings of Health Status by Race and Ethnicity

The adjusted odds ratios of very good or excellent health, relative to Caucasians, were 0.78 for Puerto Ricans, 1.02 (NS) for American Indians, 0.57 for Chinese, 0.53 for Filipinos, 0.51 for Japanese, 0.46 for Koreans, 0.52 for Native Hawaiians, 0.59 for Samoans, and 0.73 for Other Pacific Islanders.

Access to Care: Analysis of variance revealed significant differences in access to care related to race and ethnicity. Koreans and Filipinos had the lowest access ratings (7.8 out of 10), followed by Samoans (8.0) and Other Pacific Islanders (8.1), and Chinese (8.2). Groups with the highest ratings of access to care were Puerto Ricans (8.6) and Native Hawaiians (8.4). Caucasians, American Indians and Alaska Natives, and Japanese were in the middle with average ratings of 8.3.

Table 2.— Relationship Between Oobesity, Access, and Health Status						
	Days Physical Health Not Good		Days Mental Health Not Good		Odds of Poor, Fair, or Good Health Rating	
	Coef	p-value	Coef	p-value	OR	p-value
Age						
30-39	0.14	0.52	-0.16	0.40	1.3	<0.001
40-49	0.87	<0.001	-0.23	0.18	1.5	<0.001
50-59	1.1	<0.001	-0.35	0.03	1.9	<0.001
60-69	0.85	<0.001	-1.3	<0.001	2.2	<0.001
70-79	1.4	<0.001	-1.4	<0.001	3.2	<0.001
80+	2.3	<0.001	-.74	<0.001	4.9	<0.001
Female	0.16	0.06	0.34	<0.001	1.0	0.75
Education						
High sch grad	-0.05	0.60	.16	0.08	1.2	<0.001
College grad	-0.53	<0.001	-.54	<0.001	0.75	<0.001
Post-college	-0.49	<0.001	-.69	<0.001	0.55	<0.001
Race/ethnicity						
Puerto Rican	0.88	0.01	0.96	0.002	1.1	0.34
American Indian or Alaska Native	0.97	0.003	0.65	0.02	0.90	0.26
Chinese	-0.66	<0.001	-0.95	<0.001	1.7	<0.001
Filipino	-0.23	0.12	-0.68	<0.001	1.7	<0.001
Japanese	-0.45	<0.001	-0.70	<0.001	1.9	<0.001
Korean	0.27	0.40	-0.03	0.89	2.2	<0.001
Native Hawaiian	0.08	0.58	-0.09	0.42	1.6	<0.001
Samoan	1.5	0.02	1.0	0.053	1.3	0.16
Other Pacific Isle	-0.06	.89	-0.22	0.58	1.1	0.34
Obese	1.3	<0.001	0.50	<0.001	2.6	<0.001
Access						
Medium access	0.39	<0.001	0.12	0.20	1.1	0.005
Top access	-0.31	0.002	-0.41	<0.001	0.75	<0.001

Factors Related to Health Status: Obesity was a strong predictor of poor health status, even after adjustment for other factors. In the multivariable model with poor physical health days as the dependent variable, the coefficient on obesity was 1.3, suggesting that obese members tended to have 1.3 more days of poor health in a month than non-obese individuals (Table 2). Obese individuals also tended to have 1/2 a day more of poor mental health than the non-obese. In addition, the odds of their reporting poor to good health (as opposed to very good or excellent) was OR=2.6, 95%CI [2.4, 2.8].

Racial and ethnic disparities in health status also persisted after adjustment for other factors. After controlling for age, gender, education, obesity and access, Samoans had 1.5 more days of poor physical health a month than Caucasians. Puerto Ricans (0.88) and American Indian and Alaska Natives (0.97) also reported significantly more poor physical health days than Caucasians, while Chinese and Japanese members reported significantly fewer.

Mental health status also differed significantly by race and ethnicity. Again, Puerto Ricans (coef=0.96) and American Indian and Alaska Natives (coef=0.65) reported significantly more poor mental health days. Samoans also had more poor mental health days (coef=1.0), with a p-value of 0.053. Chinese, Filipino, and Japanese members had significantly fewer poor mental health days than Caucasians, after adjustment.

While Asian Americans tended to report fewer days of poor physical health, they were significantly more likely to rate their health as poor, fair, or good, compared to Caucasians. Odds ratios of poor/fair/good health ratings were 2.2 for Koreans, 1.7 for Chinese, 1.9 for Japanese, and 1.7 for Filipinos, compared to Caucasians.

Self-reported access to care had a smaller but significant impact on health status. Those with medium ratings of access (scores of 7 to 9.9) tended to have worse health status than those with low ratings of access (scores less than 7), while those with the best access (ratings of 10 out of ten) had better health status than members with low ratings of access.

As members aged, their physical health reports and ratings worsened; however, their mental health improved. Higher education levels were associated with better mental and physical health. Women had 0.3 more days of poor mental health per month than men. Gender was not significantly associated with physical health, after adjustment for other factors.

Discussion

There are over 13 million Asian and Pacific Islander Americans in the United States. When examining health disparities, it is important to examine Asian and Pacific Islander sub-groups separately, as there are vast differences between groups in health status, access, and obesity.

For instance, we know from the World Health Organization (WHO) that obesity rates in China and Japan are approximately 5% compared to over 75% in Samoa.[4] While few data are available for Asian and Pacific Islander American sub-groups in the United States, we know that Asian Americans have the lowest rates of obesity (5% compared to 22% of whites).[5] In contrast, the 2008 Hawai'i Behavioral Risk Factor Surveillance System found the highest rates of obesity among Native Hawaiians (44%), followed by "others" (24%), whites (21%), Filipinos (18%) and Japanese (15%). They were not able to break out other ethnic sub-groups, including Samoans, due to small numbers (n<50).[6] The California Health Information Survey (CHIS) reported the highest obesity rates among Samoan children.[7] However, when Asian and Pacific Islander Americans are grouped together, obesity rates range around 39%.[8] This overall rate masks the extremely high prevalence of obesity in Pacific Islanders. The ethnic diversity in Hawai'i enabled us in this study to examine the health status and obesity rates of Asian and Pacific Islander sub-groups that are not typically included in health disparity analyses.

Findings from this study echo earlier reports of the disproportionate rate of obesity in Pacific Island populations.[6,7,9] Samoans, Puerto Ricans, and Native Hawaiians had the highest rates of obesity at 50%, 37% and 36%, respectively followed by Other Pacific Islanders at 35%. Samoans also had the highest number of poor physical and mental health days, despite being the youngest group, on average, with a mean age of 47 years.

General health ratings also differed considerably by race and ethnicity (Figure 2). Caucasians were much more likely than other groups to rate their health as very good or excellent, while Asian and Pacific Islander Americans were more likely to rate their health middle-of-the-road (i.e. good).

An interesting finding was the seeming lack of consistency between reports of unhealthy days and overall ratings of health. For example, Caucasians reported 3.7 days of poor physical health and 2.6 days of poor mental health; however, 56% of Caucasians rated their health as very good or excellent. In contrast, Chinese members report 3.1 days of poor physical health and 1.8 days of poor mental health, yet only 38% rated their health as very good or excellent. Similarly, only 33% of Japanese members rated their health as very good or excellent, despite fewer poor physical (3.4) and mental (1.9) health days than Caucasians. Hence, Caucasians are rating their health status much higher than Asian Americans, while reporting more days of poor physical and mental health. More research is needed to determine whether there may be a reporting bias in unhealthy days or in ratings of health. Compared to Caucasians, do Asian Americans under-report poor mental health days due to cultural bias? Are Asian Americans less likely to rate health as excellent for reasons unrelated to health?

Koreans had the lowest health ratings. As health status ratings have been significantly associated with mortality, this group may need to be monitored to better understand areas of possible intervention.[10,11] Koreans also had the lowest ratings of access to care, along with Filipino Americans. Samoans and Other Pacific Islanders also had low ratings of access to care, compared to other groups. These findings are consistent with the results of the California Health Information Survey (CHIS).[12] This CHIS data found that 25% of Koreans had no usual source of medical care, 33% were uninsured and 62% reported having no dental health coverage. This study found significant differences in ratings of access, despite its focus on insured members, suggesting that barriers to access go beyond health insurance. Factors, such as type of employment, level of acculturation, and English language fluency, may affect ratings of access.

This study also found an association between obesity and poor health (both reports of unhealthy days and general health ratings) that persisted after adjustment for other factors. In contrast, a study utilizing the data from the Hawai'i BRFSS from 1998 to 2003 suggested that poor general health status in Polynesians, including Native Hawaiians and Samoans, was not independently associated with obesity.[13] This discrepancy between studies might be explained by the fact that the Hawai'i BRFSS study adjusted for diabetes, hypertension, and physical activity, and obesity is highly correlated with all three of those factors.

There are several limitations to this study. Responses were from a survey with a 41% response rate, so it is unclear whether this would generalize to non-respondents. Second, all surveys were administered in English, again limiting the ability to generalize, particularly to those who are newer immigrants to Hawai'i. Third, there was no information on health-related behaviors and income level, which might have been correlated with ethnicity and have influenced health status. Finally, these data are from an insured population and the findings may not generalize to uninsured populations, particularly in terms of access to care.

Despite these limitations, it seems clear from this study that the high rates of obesity in Samoan, Native Hawaiians, and Other Pacific Islanders and the low health and access ratings by Koreans speak to very different health disparities within groups that had been traditionally grouped together. Thus, to close the health disparity gaps in the diverse groups that comprise the population of Asian and Pacific Islander Americans, studies will need to disaggregate their data to illustrate a realistic picture of disease prevalence and to develop targeted interventions for at risk populations. Further study is also needed to better understand the apparent discrepancy between reports of unhealthy days and general health status ratings.

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Use of an Atriocaval Shunt in a Trauma Patient: First Reported Case in Hawai'i

Justin J. Clark MD; Susan Steinemann MD; and Jeffrey M. Lau MD

Abstract

Background: *Traumatic injuries to the retrohepatic vena cava are typically fatal. Emergent access to this area is difficult and patients typically exsanguinate before the injury can be identified and fixed.*
Objective: *To report the use of an atriocaval shunt in the repair of an injury to the retrohepatic vena cava from a gunshot wound.*
Case Report: *A 24-year-old man was shot in his right chest suffering a penetrating injury to the liver and inferior vena cava. Surgical repair was performed with the aid of an atriocaval shunt fashioned from a chest tube. He survived and recovered without incident.*
Conclusion: *Atriocaval shunting may be a life-saving option for uncontrolled hemorrhage from injuries to the retrohepatic vena cava.*

Introduction

Injuries to the retrohepatic inferior vena cava (IVC) and hepatic veins in trauma are associated with extremely high mortality. In order to repair such an injury before a patient exanguinates, the surgeon must have a plan. The atriocaval shunt was first described by Schrock et al in 1968 as a means of controlling hemorrhage from this type of injury.[1] Herein, we report the successful use of an atriocaval shunt (ACS) in a trauma patient with a penetrating injury to the retrohepatic IVC. To the best of our knowledge this is the first reported case in Hawai'i.

Case Report

A 24-year-old man was shot in the right chest during an attempted car jacking. He was able to drive himself to medical attention. On initial examination by the trauma team his airway was intact, he had bilateral breath sounds and was hemodynamically stable. The presumed entrance wound entered the right chest at the anterior axillary line 6 cm below the nipple. Chest radiograph showed the bullet overlying the thoracic vertebrae. Focused assessment with sonography in trauma (FAST) examination revealed hemoperitoneum.

Consent was obtained, a right tube thoracostomy tube was placed and he was electively intubated. Exploratory laparotomy revealed a defect in the right diaphragm, a hemostatic injury to the dome of the right lobe of the liver and a large nonpulsatile, nonexpanding zone 1 hematoma. Upon exploring the hematoma we encountered massive hemorrhage from the retrohepatic IVC. After a right visceral medialization, we performed a median sternotomy for improved exposure. We were unable to expose the defect and thus performed an atriocaval shunt using a 40 French chest tube with extra vent holes. We were able to identify the 1.5 cm defect, control the hemorrhage and repair the defect primarily with nonabsorbable suture.

His abdomen and the diaphragmatic defect were closed primarily on post-operative day number two. He recovered uneventfully and was discharged on post-operative day number 7.

Discussion

The concept and use of the ACS was first described by Schrock et al in 1968.[1] Since then there have been several case reports and small case series describing its use. The technique and associated pitfalls have been previously described in detail.[2] In brief, a 36 French chest tube (or a 9mm endotracheal tube) with an extra side vent hole is inserted through the right atrium into the IVC after incision of the atrial appendage and secured with a purse-string stitch. The shunt is then secured with tourniquets at the intrapericardial and suprarenal vena cava. In theory, if performed correctly and combined with a Pringle maneuver (temporary occlusion of the porta hepatis), the ACS should control almost all bleeding. It is based on the anatomic observation that only the hepatic veins, right adrenal vein, and inferior phrenic veins enter the IVC above the level of the renal veins.[1] In actuality, it only reduces bleeding by 40-60%.[3]

Problems that may occur with this technique are related to exposure and tube placement. In order to place the tube into the right atrium the surgeon must have access to the chest, ideally via a median sternotomy. If the proper equipment is not in the room or if the surgeon is unfamiliar with this approach, access to the right atrium may be delayed. In addition, if the renal veins are not well exposed or visualized, placing the lower tourniquet below the renal veins may lead to continued hemorrhage from the defect.

Placement of the tube can sometimes be problematic. The shunt must bypass the defect and not protrude through the defect causing further injury. The vents must also be positioned proximal and distal to the tourniquet, or blood will be shunted through the defect rather than around it.

Survival in patients in which the ACS is performed is low. One of the largest and most comprehensive case series is from Burch, Feliciano and Mattox who used the ACS in 31 patients.[2] The mechanism was penetrating trauma in 27 patients with only 6 survivors (19%), all of which had gunshot wounds to the retrohepatic IVC. Kudst et al reported the use of the ACS in 18 patients of which only 4 survived (22%).[4] In large part, the dismal prognosis in these patients is attributable to the severe nature and location of the injury. These patients often present in extremis with severe hemorrhagic shock and additional life-threatening injuries. However, lack of quick access to equipment, difficulties in adequate exposure, and improper shunt placement may also contribute.

Alternatives to the ACS have been reported. Pilcher et al described a balloon shunt inserted through the saphenofemoral junction to occlude the IVC, but current use is limited.[5] Complete vascular isolation has been described, which involves cross-clamping the supraceliac aorta, the suprarenal and intrapericardial IVC, and the porta hepatis.[6] However, this is poorly tolerated in a hypovolemic patient. A direct transhepatic approach was reported by Pachter et al with good success, but as Burch et al maintains, this success may be best attributable to the surgeon's skill rather than the technique.[7] Several case reports indicate success with complete venovenous bypass, the idea born from its use in liver transplantation.[8,9] If the equipment and expertise is available this may be a viable option.

In this situation, the shunt worked well, but it did not significantly reduce the amount of hemorrhage. The real benefit was in the tactile sensation it provided. We were able to palpate the chest

tube through the IVC and identify the defect. We were then able to place a Satinsky clamp, stop the hemorrhage and repair the 1.5 cm defect in the IVC.

It is also important to consider whether we could have treated this injury conservatively. Prior to exploration of this zone 1 hematoma, the patient was stable and the hematoma was nonpulsatile and non-expanding. Traditional teaching and current practice maintains that all zone 1 hematomas, whether from blunt or penetrating injuries, should be explored. However, this has been challenged.

Buckman et al wrote, "There is no evidence that injuries of the retrohepatic or immediate subhepatic vena cava, associated with spontaneously contained hematomas, require repair to prevent recurrent hemorrhage or thromboembolic complications."[10] His point is well taken. There is increasing literature to support the nonoperative management of even grade IV and V injuries with major venous injuries.[11] In addition, interventional radiologic techniques are also evolving. Angiography and embolization or venous stenting with or without perihepatic packing may avoid the need for operative shunting techniques altogether in patients with a stable hematoma.

Conclusion

Traumatic injuries to the retrohepatic vena cava are difficult to treat and are typically fatal. While not a perfect solution, in certain situations the use of an atriocaval shunt may prove a life-saving intervention.

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Developing Shortage of Physicians

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Great attention is being paid these days to the American health system. Solutions are being considered for insurance reform, broader access, more efficient systems of care, better outcomes, and cost management. However, there is another trend, perhaps less well recognized, that has the potential to impact severely on the ability to improve any of these outcomes; i.e. a growing evidence that a severe shortage of physicians is developing.

A Rising Concern

In 2006, the federal government's Health Resources & Services Administration (HRSA) released a report that forecasted a nationwide 10 to 20% across the board shortage of physicians by the year 2020.[1] National organizations like the Association of American Medical Colleges and the College of Graduate Medical Education, have called for an expansion of every medical school's enrollment in the United States by 30%.[2] While the number of positions in US Medical Schools has increased slightly due to the opening of new schools, the number of residency positions funded by CMS has not increased and therefore significantly restricts the potential for increasing the number of physicians being produced.

An article recently published in the Hawai'i Medical Journal, Withy, et al. outlined factors affecting both supply and demand for physicians.[3] They explained that nationally, factors contributing to an inadequate supply of healthcare providers include an insufficient number of students entering the health professions, a reduction in worker productivity based on gender, age and work preferences, technologic changes, and the potential mass retirement of providers characterized as the "baby boomer" generation.

Despite constraints in workforce size and composition, the demand for health services continues to rise, principally due to population growth, aging, changes in expectations of medicine, increasing prevalence of lifestyle related chronic diseases, and the impact of new technology and treatment options. HRSA projects future need for physicians to rise 50 to 60% in specialties that care for the elderly.[4]

Overall Physician Projections for Hawai'i

In 2007, the Hawai'i Medical Education Council commissioned a JABSOM research group to gather accurate workforce data for Hawai'i physicians and to estimate workforce needs over the next 20 years. Although much more information needs to be gathered and sorted, preliminary results reveal very concerning trends that deserve immediate attention.

While there are nearly 8000 physicians licensed in Hawai'i, fewer than 3,000 are seeing patients in a non-military setting. Previous estimates, using the AMA Master file to identify physicians, ranked Hawai'i number seven among states with respect to physician workforce. However, the JABSOM research team documented that the AMA Master file included names of retired or non-practicing physicians. Therefore it overstated the supply of physicians. New data, collected by direct review or contact with providers, proved more accurate. When adjusted for population size and compared with national averages for physician to population ratios, Hawai'i is at least 500 physicians below the number needed if the patients in Hawai'i have similar utilization patterns compared to national data. Currently, surveys are being conducted to see if this impacts patient access to healthcare. If so, this gap will need to be closed. If not, Hawai'i's physicians appear quite efficient when compared to national norms, but Hawai'i is starting at already lean levels when one considers the great demand for physician replacements on the horizon.

The HRSA projection model for physician demand estimates that Hawai'i will need approximately 1000 physicians more by the year 2030. This new information means that 50 new physicians per year will be needed in order to maintain current levels of service.

This situation is aggravated by the research group's finding that 40% of the practicing non-military physicians in Hawai'i are 54 years of age or older. If this group retires at age 65, they will need to be replaced, creating an additional recruitment burden of 100+ physicians per year.

Preliminary information gathered regarding new physicians suggests that currently; between 50 and 90 physicians begin practice in Hawai'i each year. Roughly half of these (45) have gone to medical school or residency at JABSOM. Hawai'i Residency Program (HRP) data shows that 80% of JABSOM students that stay in Hawai'i for residency training also begin their practice post-residency in Hawai'i.

Given that retirement and demand will require at least 150 new physicians per year to maintain the current service levels, and less than 90 physicians are added per year, if nothing is done, the physician shortage that currently exists may double during the next 10 years. This trend will continue as "baby boomers" hit their 70's – 80's in the years between 2020 and 2030.

Specialty Care Projections

Shortages will be particularly severe in primary care, cardiology, gastroenterology, orthopedics, general surgery, and other medical and surgical subspecialties. Hawai'i has training programs in only four of these areas currently. Unless training opportunities are created for these specialties in Hawai'i, there will be competition for physicians with the mainland where there will also be a severe shortage in 2030, perhaps as high as 150,000 physicians.

The specialty of cardiology provides a clear example of the challenges ahead. Preliminary estimates are that at least 40 cardiologists are needed to meet the current demand, and twice that in the year 2020. Currently, Hawai'i has no cardiology fellowship. Queens Medical Center recently submitted a request for such a program but, if successful, it will graduate one fellow each year beginning

in 2012. Thus, 8 cardiologists will be generated during this decade, some of whom may not stay in Hawai'i.

Conclusions

Projecting supply and demand 20 years into the future is challenging. There is strong indication that a severe physician shortage will occur over the next 20 years. Immediate attention is required to blunt the negative impact of this national phenomenon in Hawai'i. The shortage involves primary care and several key specialties in medicine. Unless actions are taken, the shortages will significantly impact the lives of physicians and perhaps more importantly, patients.

Potential Solutions

Training new physicians will take time and require substantial investment in expanding capacity in medical schools, residencies and fellowships. While this should be a primary strategy, expanding the pipeline by 40% immediately would dampen the impact of these factors by less than 50%. The shortage would continue to grow. Substantial work is needed to improve the attractiveness of medical practice and the ability to recruit physicians into the state. An efficient care model needs to be created to fully employ the talents of all providers including advanced practice nurses, physician assistants, pharmacists and others.

In future HMJ Hotline articles, current activities and potential solutions in specific workforce topics will be described, including expanding medical education, community recruitment options, medical home, and interdisciplinary team care. All of these issues that will directly impact on patients and practices will likely be very controversial. This is an opportunity to lead, determine, and develop solutions. Send your thoughts, concerns, suggestions to Roy Magnusson at armagnus@Hawai'i.edu. He will address them in articles to follow.

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Date	Specialty	Sponsor	Location	Meeting Topic	Contact
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3/5-3/6	OBG	The Queen's Medical Center	Halekulani	Preventing & Managing Gynecologic Operative Complications	Tel: (808) 547-4406 Web: www.queens.org/cme
3/19	P, ADM	Department of Psychiatry, John A. Burns School of Medicine	The Queen's Conference Center	2010 Hawai'i Addictions Conference	Tel: (808) 586-2904
3/26-3/30	AN	International Anesthesia Research Society	Hawai'i Convention Center, Honolulu	84th Congress	Tel: (216) 642-1124 Web: www.iars.org
3/29-4/1	Multi	Scripps Conference Services & CME	Kaua'i Marriott Resort & Beach Club, Kauai	15th Annual Primary Care in Paradise Email: med.edu@scrippshealth.org	Tel: (858) 652-5400 Web: www.scripps.org/primarycareparadiseCME
April 2010					
4/4-4/9	IM	University of California San Francisco School of Medicine	Wailea Beach Marriott, Maui	Primary Care Medicine: Update 2010	Tel: (415) 476-4251 Web: www.cme.ucsf.edu/cme
4/4-4/10	EM	Stanford School of Medicine	Grand Hyatt, Poipu Beach, Kaua'i	16th Annual Stanford Symposium for Emergency Medicine	Tel: (650) 497-8554 Web: www.stanfordhospital.org/forPhysiciansOthers/cme/
4/22	Multi	The Queen's Medical Center	Koolau Golf Club	The Queen's Medical Center Conference on Geriatric Medicine "Sex, Drugs & Rocking Chairs"	Tel: (808) 547-4406
May 2010					
5/4-5/7	PD	Pediatric Orthopaedic Society of North America	Hilton Waikoloa Village	POSNA/APOA Annual Meeting	Tel: (847) 698-1692 Web: www.posna.org
5/7-5/8	Multi	Department of Native Hawaiian Health, John A Burns School of Medicine	Waikiki Beach Marriott Resort & Spa	He Huliau -- A Turning Point: Eliminating Health Disparities in Native and Pacific Peoples - Metabolic Syndrome and Health Equity	Tel: (808) 692-1255 Email: native@hawaii.edu
July 2010					
7/3-7/9	DR	Radiology Department, Stanford School of Medicine	Kea Lani Hotel, Maui	18th Annual Diagnostic Imaging Update	Tel: (888) 556-2230 Web: radiologycme.stanford.edu
7/3-7/9	PD	Childrens Hospital Los Angeles Medical Group	Hyatt Regency Maui, Ka'anapali Beach, Maui	Pediatrics in the Islands: Clincal Pearls	Tel: (323) 361-2752 Web: www.childrenshospitallamedicalgroup.org
7/10-7/15	IG, N	Alzheimer's Association	Hawai'i Convention Center, Honolulu	2010 International Conference on Alzheimer's Disease	Tel: (312) 335-5790 Web: www.alz.org/icad/2010_icad.asp
7/26-7/29	DR	Radiology Department, Stanford School of Medicine	Hyatt Regency, Maui	4th Annual LAVA (Latest Advances in interVentionAl techniques)	Tel: (888) 556-2230 Web: radiologycme.stanford.edu
August 2010					
8/2-8/6	AN	Dannemiller	Sheraton Maui Resort, Maui	Hawai'i Anesthesiology Update 2010	Tel: (800) 328-2308 Web: www.dannemiller.com/live-events

8/10-8/13	EM	University of California, Davis School of Medicine	Grand Wailea, Maui	Emergency Medicine Update: Hot Topics 2010	Tel: (916) 734-5390 Web: cme.ucdavis.edu/conferences
October 2010					
10/17-10/22	Multi	Scripps Conference Services & CME	Kaua'i Marriott Resort & Beach Club, Kaua'i	9th Annual Destination Health: Renewing Mind, Body and Soul Email: med.edu@scrippshealth.org	Tel: (858) 652-5400 Web: www.scripps.org/conferenceservices
10/23-10/29	U	Western Section of the American Urological Association	Hilton Waikoloa Village	86th Annual WSAUA Meeting	Web: http://www.wsaua.org/hawaii2010/2010.htm
November 2010					
11/1-11/5	AN	California Society of Anesthesiologists	Mauna Lani Resort & Spa, Kailua-Kona, Hawai'i	2010 CSA Fall Hawaiian Seminar	Web: www.csahq.org
11/7-11/10	R	Department of Radiology, Duke University	Hyatt Regency Maui, Ka'anapali Beach, Maui	A Comprehensive Review of Musculoskeletal MRI	Web: www.radiology.duke.edu
January 2011					
1/24-1/28	AN	California Society of Anesthesiologists	Mauna Lani Resort & Spa, Kailua-Kona, Hawai'i	2011 CSA Winter Hawaiian Seminar	Web: www.csahq.org
May 2011					
5/14-5/19	P	American Psychiatric Association	Hawai'i Convention Center, Honolulu	164th Annual Meeting	Tel: (703) 907-7300 Web: www.psych.org
October 2011					
10/24-10/28	AN	California Society of Anesthesiologists	Grand Hyatt, Poipu Beach, Kaua'i	2011 CSA Fall Hawaiian Seminar	Web: www.csahq.org
January 2012					
1/23-1/27	AN	California Society of Anesthesiologists	Hyatt Regency Maui, Ka'anapali Beach, Maui	2012 CSA Winter Hawaiian Seminar	Web: www.csahq.org

Upcoming in the Journal

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A "Silent Culture-Negative" Abdominal Aortic Mycotic Aneurysm: Rapid Detection of Bartonella Species Using PCR and High-Throughput Mass Spectrometry

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THE WEATHERVANE

RUSSELL T. STODD MD, CONTRIBUTING EDITOR

❖ A DOCTOR WHO SPEAKS THE TRUTH BECOMES A MARTYR.

If any doubt remains about the corrupt and brutal government of Iran consider the case of Dr. Ramin Pourandarjani, a handsome and courageous 26-year-old physician. While serving in the military to fulfill his obligation to the government, he refused to sign false death certificates which covered up murders. He testified to a parliamentary committee that jailers were torturing and raping people who protested the regime. He told his family that he was being watched and followed, and he feared for his life. On November 10th he was found dead in the clinic where he worked. Officials first blamed his death on a car accident, then a heart attack, then suicide and then poisoning. His death "remains under investigation." Protestors now carry his picture as a banner in the streets of Iran, along side that of Neda Agha Soltan, the young woman philosophy student whose shooting death in June was captured on video. They represent a powerful symbol and a rallying cry for those opposing this rotten government.

❖ TEN YEARS OF GLOBAL WARMING. NOT!! DON'T LIE UNTIL YOU HAVE TO.

The December journal of the American Association for the Advancement of Science reported that negotiators are busy trying to formulate an international working agreement to be signed in Copenhagen in December on global warming. But wait, a problem has arisen. Climate researchers admit that the earth's temperature has not risen in the last ten years. The Intergovernmental Panel on Climate Change predicted that earth would warm 0.2 deg. Celsius from 1999 to 2008, but found that it was actually 0.07 deg. and with correction for the natural temperature effects of El Nino and La Nina, it was a flat 0.0 deg. C. Experts are not surprised, and claim that this pause is a natural variability. Still, these data combined with the stolen e-mails from the United Kingdom East Anglia Climate Center have seriously damaged the scientific integrity of a backbone facility asserting global warming. Director Phil Jones was attempting to stifle any challenges from skeptics and stated, "keep them out somehow – even if we have to redefine what the peer review literature is." His e-mail stated that he used a "trick" to "hide the decline" in a chart detailing recent global temperatures. Any scientist who is ready to cook the books to establish his case does more than hurt his argument. He is dead meat for creditable research. He has "temporarily" stepped aside as director of the Climatic Research Unit.

❖ FOR EVERY ACTION THERE IS AN EQUAL AND OPPOSITE GOVERNMENT PROGRAM.

Recent data collected by the National Cancer Institute and other health organizations reported that cancer diagnoses and deaths continue to decline in the United States. In the years 2001 to 2006 deaths declined by 1.6% each year. Overall cancer rates continue to be higher in men, but males experienced a greater decline than women. The drops in diagnoses and death in men were lung, prostate and colorectal; in women the decline was breast and colorectal. Cancer death rates were highest in black men and women, and lowest in Asian Pacific Islander men and women. Almost at the same time a federally funded task force said that women should wait until age fifty to begin annual mammography, and have breast exams and routine colonoscopy less frequently. That plan seems to imply screening has been too successful. Dr. Bernadine Healy, previous director of National Institutes of Health, said that the recommendation would seriously endanger women in their forties when breast cancer is often very aggressive. "It may save money, but it won't save lives." The issue has become a partisan debate as Republicans claim it is an early attempt at rationing.

❖ DON'T GAIN A HABIT THE FIRST HALF OF YOUR LIFE THAT SHORTENS THE LAST HALF.

A research team at the University of Michigan conducted a survey of teenagers to determine use of tobacco, alcohol and other drugs. Daily cigarette use by 12th graders dropped to 11.2%, the lowest point since the survey began in 1975. Moreover, the percentage of students who reported ever trying smoking has fallen dramatically to 20% from 49% in 1996. In the past year cocaine decreased from 4.4% to 3.4%, and methamphetamine and hallucinogens dropped also. About one-third of seniors admitted to using alcohol in the past year which was unchanged from the previous survey. The big however in this good report is the use of marijuana which is increasing. Almost one-third of high school seniors and more than one-fourth of juniors reported using marijuana, an increase from 11% in 2008. Speculation must arise about the increased use and availability of cannabis in relation to the change in federal action regarding marijuana for medical use.

❖ JOB OPPORTUNITY, GATEKEEPER – MUST STAY AWAKE AND BE ABLE TO READ.

"We are fortunate that this diplomatic celebration did not become a night of horror," said Rep. Bennie Thompson (Dem. Miss.) chairman of the panel investigating how party crashers could get into the White House black tie soiree. The Secret Service, the agency that protects the president, placed three uniformed officers on leave while Director Mark Sullivan tries to sort out this ugly total failure of security. Tareq and Michaele Salahi maintained that they were led to believe they could have access to the nights events. They did not have an invitation and were not listed with Desiree Rogers the Obama administration's social secretary. They talked their way past security by stating they were part of a quest to get on a reality TV series. Director Sullivan admitted that his agency did not even know about the breech until they saw the couple posing with Vice President Biden on Mrs. Salahi's Facebook page, but he insisted that the President's safety was never in doubt. Right, and an e-mail from Nigeria wants to give you five million dollars.

❖ WHY TAKE A PILL? JUST GO OUTDOORS.

Published in the Archives of Internal Medicine researchers at the University of South Carolina and Harvard School of Public Health gathered data on 18,000 men and their blood levels of vitamin D. It isn't just a matter of rickets in children or reduced bone mineral content in adults, now it is apparent that vitamin D insufficiency affects health overall and increases risk of heart attack, cancer and infection. The individual drop in vitamin D level is attributed to spending less time outdoors with a lack of exposure to sunlight which is a known determinant of vitamin D status in humans. It was found that men with lowest levels were twice as likely to have a heart attack as men with the highest level. The authors' conclusion is that lower levels of vitamin D are right up there with high blood pressure and smoking, and an adequate daily supplement appears to mitigate adverse outcomes of this growing epidemic.

❖ SCANDAL IS AN ILL WIND THAT BLOWS NOBODY GOOD.

Gatorade Tiger Focus, a Pepsico Inc. product, has been dropped from television ads featuring Tiger Woods. Since the scandal broke other advertisers have simply discontinued running similar ads on prime-time, evening news, sports telecasts on major networks and 19 cable networks. Sponsors Nike, Gillette, TLC Vision Corp. (laser surgery) stated that their relationships with Tiger have not changed. Pepsico stated that Mr. Wood's current difficulties were not related to their current plans for Gatorade, but are merely part of an overhaul of its brand which has been in the works for months.

❖ A NEW LEGAL FIELD FOR DEMONSTRATING PRODUCT LIABILITY.

It sounds bizarre but Carolyn Bennet, M.D., a member of the Canadian Parliament, has asked the health minister for regulations on the use of sex toys. Her point is that the use of bisphenol A (BPA) and phthalates in some products could pose a health risk to women. She pointed out that BPA cannot be used in the manufacture of baby bottles and phthalates are also banned from use. The data regarding possible harm from these compounds has been challenged by manufacturers.

❖ YOU CAN GO ANYWHERE YOU WANT TO WITH A BADGE AND A GLOCK.

In Jacksonville, Florida, an off-duty sheriff's deputy forgot to leave her sidearm outside when she accompanied her mother to Shands Jacksonville hospital for an MRI exam. The powerful magnet snapped up the Glock pistol trapping the deputy's hand between the firearm and the magnet. (Her gun was drawn?) After a lengthy delay for powering down and powering up plus repairs, the MRI was back in action. Estimated cost to the hospital was $150,000.

ADDENDA

❖ Number one quote of the year: "Keep your government hands off my Medicare!"

❖ Winning bid on e-bay for a dinner with Sarah Palin $63,500.

❖ The pharmaceutical industry spends $16 billion each year on free medication samples.

❖ According to National Highway Traffic Safety Administration (NHTSA) 6% of American drivers admit to reading while driving.

❖ Here are a few real jobs you don't want: portable toilet cleaner; crime scene cleaner, ape urine collector.

ALOHA AND KEEP THE FAITH — **rts**■

(Editorial comment is strictly that of the writer.)

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