



MACEP News

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President's Message

Elijah Berg, MD, FACEP



“Going to the emergency room...” Politicians, insurers and others often view utilization of the ED as an expensive failure of the health care system.

However, when people talk about “going to the emergency room” they are mostly talking about reasonably accessing quality care that is available to them 24/7. “I was so sick that I went to the emergency room” is an indication that the public and their physicians feels that our ED’s are the place to go when they are very ill. “I was scared that this could be something serious” indicates that they know that the ED is where a timely and accurate diagnosis can be made by practitioners with excellent diagnostic skills and equipment available to them. “I have no insurance so I came to the emergency room” is often what we hear from those that have no place else to go even for both minor and major illnesses.

Although it is less talked about, more and more, we are hearing from insured patients with ambulatory complaints such as uncomplicated bronchitis that “my doctor told me to go to the emergency room.” This is very telling. Primary physicians working in their busy offices are swamped doing things such as

managing their patients with chronic illnesses and adjusting long term medications, and therefore often refer (maybe it should be called an office “divert”) their patients with acute complaints to the ED. The PCP’s make referrals to the ED because they know that we can usually see the patient faster than they can and treat the patient with the same or better quality of care than they can provide.

Additionally, an increase in managed care participation has actually shown to be associated with increased ED utilization rates. Interestingly, just north of the border, Canada has a greater proportion of primary care physicians in comparison to the U.S. and yet there is an over 80% greater use of ED’s in Canada compared to use in the U.S. Such facts are hard to reconcile when misconceptions are repeated over and over again.

As ED physicians, we need to be able to articulate the fact that utilizing an ED is often an example of a wise choice of someone in need of immediate quality care, and that this choice can be an efficient use of society’s health care dollars. In cases where continuity of care truly matters for the initial evaluation and treatment decision, there is no disagreement that patients should receive care from their PCP, or have their ED care coordinated with the PCP. However, there are times and circumstances when it is practical, safe, or economical to receive their care in an emergency department. What? Repeat that. ED’s are a good place for quality low cost care? That is not part of the talking points of many involved in healthcare reform and universal coverage discussions. The issue is

Save the Dates

May 11: MACEP Annual Meeting, Crowne Plaza Hotel, Natick

April 17-21: Leadership and Advocacy Conference, Loews L’Enfant Plaza Hotel, Washington, DC

June 9: Advances in Emergency Care of Sexually Assaulted Patients, MMS Conference Center, Waltham

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hard for policy makers to understand, and even for some of us. Once society has decided that it needs a 24/7 safety net of a hospital ED, staffed with physicians, nurses, equipment, imaging equipment, lab equipment, heated rooms, technicians etc., it actually takes very little additional resources to treat an extra patient (i.e. the marginal cost is very low). In evening hours for example, fewer additional resources are utilized when treating an ankle sprain in the ED than would be used by a PCP keeping an office open until 11 PM staffed with physicians and technicians. Of course, insurers would rather their members (patients) be seen in a office setting because the *charges* for that care are less, but sometimes the *cost* in additional healthcare resources associated with being treated in an office would be more.

Why does ED care result in higher charges? It is because the overhead costs of being a 24/7 safety net are high. Overhead costs remain regardless of patient volume. ED staff and equipment still need to be immediately available, even if nobody comes. From a high level perspective of utilizing society’s healthcare resources efficiently, patients should come to the

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MACEP News

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PRESIDENT continued

ED if their care can be provided with as much quality as in other settings, which should take into account how continuity of care affects the quality of care provided in treating specific complaints. ED charges might be higher, but the marginal costs (resource utilization) are lower.

When health care policy makers, interest groups and politicians discuss healthcare delivery proposals they seem to always refer to the myth of “expensive ED care” and that keeping patients out of the ED is an appropriate goal of any proposal. The fixed costs to society of maintaining an open ED will not go down if nobody comes to the ED except for emergently ill patients. How will society fund our ED’s if patients that could receive quality care in the ED are knee jerked “diverted” to other settings? Does it make sense to utilize alternative settings, with associated additional resources consumption instead of providing that same or better care efficiently in an ED? From a micro-

economic perspective, office and urgent care center visits may cost payers less because charges are less; however from macroeconomic perspective it does not cost society less in terms of health care resources utilized. This economic fact is hard for many to accept.

Once fixed costs are accepted as a necessary expense, EDs offer many patients efficient, quality and low cost care. If society could fund the fixed stand-by costs and uncompensated care costs of an ED through a mechanism other than these costs being recovered through charges reflected on all patients’ bills, the charges on an ED bill would be lower, and the economic reality of the low marginal cost of ED care would be better understood.

As the current Massachusetts legislative session gets under way, it is clear that healthcare proposals will come from legislators, the Governor and public interest groups. You can be sure that MACEP will have a seat at the table and try to separate facts from myths.



Medicine's Frontline

Massachusetts Chapter Leaders Encourage Your Participation

Make plans now to attend the Capitol Hill Rally at the 2005 *Scientific Assembly* to ensure that Massachusetts is represented in this unprecedented event. The Rally will gather a thousand emergency physicians from 10 to 11 am, Tuesday, September 27 on the West Lawn of the Capitol to bring attention to the current condition of emergency medicine.

Together, physicians and key lawmakers will stand side by side and implore Congress to act on meaningful legislation by declaring a state of

emergency in the nation’s ED’s.

“Every Massachusetts emergency physician should make plans to attend this important event,” said MACEP President Elijah Berg, MD, FACEP. “The issues that will be addressed at the Rally absolutely impact the emergency departments of this state, and we cannot stand idly by and simply hope something changes. Now is the time to get involved and make changes ourselves.”

ACEP Executive Director, Dean Wilkerson said this Rally will position ACEP as a force in Washington, DC. “ACEP should be viewed as an action-oriented organization, a do good organization concerned about patient care and safety; one that is not afraid to voice its opinion; one that the public, the media, and policy makers cannot afford to ignore,” he said.

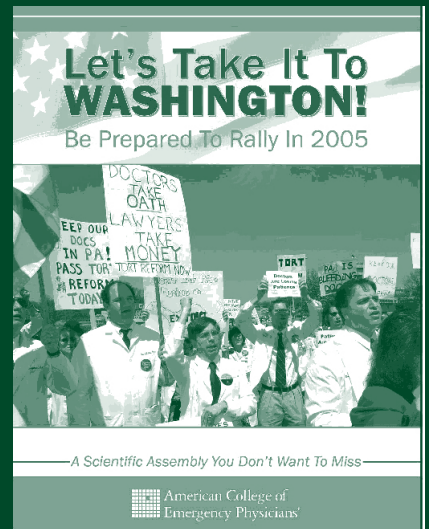
Save the Date!

American College of Emergency Physicians Capitol Hill Rally

September 27, 2005

10:00 - 11:00 am

West Lawn, Capitol Hill
Washington, DC



A Scientific Assembly You Don't Want To Miss

American College of
Emergency Physicians



MACEP Public Health Committee Report

MACEP's Public Health Care Committee (PHC) under the direction of chair Kimberly Markuns, MD and Board Liaison James Feldman, MD met on March 17, 2005 to review current projects as well as to plan for the upcoming year as the new legislators begin their work. The committee has developed a working email network in order to improve communication of public health issues. The goal is to have one person from each hospital willing to participate. So far, forty hospitals have representation. If you would like to be your hospital's representative, call MACEP at (781) 890-4407.

Primary Seatbelt Legislation is being reintroduced this year and the committee is looking for emergency physicians who are willing to act as a resource. This would entail being willing to speak with news reporters in your local area, contacting individual legislators as the issue comes the forefront, and possibly testifying before the legislature as some legislators still do not feel they can support current primary legislation due to concerns about racial profiling among others. Compelling stories are very effective in making the point that seat belts make a difference. So please contact us with any stories you may want to share. This year seatbelt effort is being spearheaded by MADD (617-227-2701 or 800-623-MADD).

Expanded access to emergency contraception will again come before the state legislature this year and MACEP PHC will continue to monitor its progress with the assistance of our lobbyist.

The Massachusetts DPH is one of 35 states to receive a federal grant to study asthma with a focus on treatment and education. MACEP helped them achieve that grant with a letter of support. The PHC will keep

you aware of the study as it progresses, especially since Massachusetts has the third highest rate of asthma in the country.

The DPH, with MACEP's assistance, sent surveys to MACEP members and hospitals regarding HIV and nPEP care. The collected survey data suggests that although treatment has improved following the educational efforts of the DPH, there is still much room for improving care. The committee will be addressing additional ideas on this issue.

As you may know much of the funding for programs helping people quit smoking has been cut from the state's budget. There still is a smoking cessation "quit line" available to patients seeking to quit [*In English at 1-800-TRY-TO-STOP (800-879-8678); In Spanish at 1-800-8-DEJALO (800-833-5256); via TTY at 1-800-TDD-1477 (800-833-1477)*]. Please consider adding the help line to your pre-formatted discharge instructions, especially for diagnoses related to asthma, emphysema, pneumonia, bronchitis, and other lung diseases.

Among the issues discussed is the increasing incidence of overcrowding in many EDs. Recently JCAHO required hospital attention to this issue and their "white paper" can be accessed at www.jcaho.org. In addition, Christine Ferguson, the former Massachusetts DPH Commissioner, sent a letter to all hospital CEOs to allow hospitals to move boarded stabilized patients from the EDs to patient floors until a bed becomes available.

Access to care, especially among the uninsured and underinsured, continues to be a troubling issue; one that has received increased political attention in recent months. The PHC with MACEP's board is following the issue, has provided key legislators with an informational "white paper," and is working with a coalition to seek solutions.

MACEP Members Make a Difference

MACEP is proud to announce the appointment of two of our members, **Dr. Mark Pearlmutter**, ED Director of Caritas St. Elizabeth's Hospital, and **Dr. Charlotte Yeh**, CMS Regional Administrator of Region 1, to the newly created EMTALA Technical Advisory Group (TAG), a group required by the Medicare Prescription, Improvement, and Modernization Act of 2003 (MMA). The group, consisting of 19 members including the Administrator for CMS and Health and Human Services' Inspector General, has been charged with reviewing the regulations affecting hospital and physician responsibilities under EMTALA in order to help CMS develop rules that will protect individual rights while minimizing unnecessary burdens on health care providers.

Closer to home, two other MACEP members, **Dr. Alan Woodward**, president of the Massachusetts Medical Society and ED Director of Emerson Hospital, and **Dr. Peter Paige**, ED Director of UMass Memorial Hospital, were recently appointed by Governor Romney to two different task forces focusing on medical malpractice and liability reform. Dr. Woodward is one of 13 members of an on-going panel charged with recommending comprehensive reforms to the professional liability system. Dr. Paige was named by the governor to a new task force to study the feasibility of establishing a special court for handling malpractice claims.

MACEP is also proud to note that **Dr. Hilarie Cranmer** of the Department of Emergency Medicine at Brigham and Women's Hospital has been featured in both the Boston Globe and the New England Journal of Medicine for her recent work on behalf of Tsunami victims in Indonesia.



New Benefit for MACEP Members

Half-Price Subscription to the Journal Watch Emergency Medicine One Year For Only \$59.50

Journal Watch Emergency Medicine keeps clinicians up to date on the most important research appearing in the literature. Launched in 1997, the publication serves a community of generalist and specialist physicians, nurses and nurse practitioners, and other healthcare professionals. *Journal Watch Emergency Medicine* is published biweekly on the web and monthly in print. Led by Dr. Ron Walls, the 10-member physician Editorial Board regularly reviews more than 40 of the top general and specialty medical journals. Each month they summarize 22-24 of the most important studies and provide expert commentary to put the research into perspective for practicing clinicians. Occasional Landmark Articles single out truly exceptional studies that

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To subscribe, please call (800) 843-6356 and provide MACEP's special discount code: **GJE6D5DA**. Business hours are Monday through Friday, from 8 am to 4 pm.



Register Now for MACEP's Annual Meeting

Join your colleagues for MACEP'S Annual Meeting to be held on Wednesday May 11, 2005 at the Crowne Plaza Hotel in Natick.

Once again the day will feature some exceptional speakers including Drs. Ron Walls, Charles Pollack and Peter Rosen, in addition to providing an opportunity for residents to present their research and once again compete for the EM Jeopardy Trophy. The CME program is free for members and residents and only a small fee is charged for those non-members who may be interested in attending.

You can view the brochure at www.macep.org. Register now! We have included a registration form below for your convenience. We look forward to seeing you there.



Massachusetts College of Emergency Physicians Annual Meeting Registration Form

Wednesday, May 11, 2005 • 7 am - 5:30 pm • Crowne Plaza • 1360 Worcester Rd (Route 9 East) • Natick, Massachusetts

MAIL registration form to MACEP, 860 Winter Street, Waltham, MA 02451-1414; **FAX** registration form to (781) 890-4109 or register by **TELEPHONE** (781) 890-4407.

Name _____ Telephone _____

Address _____

City _____ State _____ Zip _____

Email _____ Hospital _____ MACEP Member: Yes No

Resident: Yes No Residency Program _____

Prior registration is strongly encouraged to ensure enough space. Please mark one of the following and return:

Educational programs and Luncheon: MACEP Members & All Residents **FREE**

Educational programs and Luncheon: Non-MACEP members **\$50**

Reception: Yes No

Method of Payment: Visa Mastercard Check enclosed

Card Number _____ Expiration date _____

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Check if you would like a vegetarian meal. **A CONFIRMATION OF REGISTRATION WILL NOT BE SENT.**



Case Management: Ear Pain

By Kalev Freeman, MD, Ph.D.

CC: Bilateral ear pain x 3 weeks.

HPI: A 22-year-old African-American female college student presents to the emergency department complaining of pain in both ears. Her symptoms started 3 weeks ago, with a sensation of fullness initially in the right ear. She also describes a continuous “swishing” noise on the right. Her ear pain is associated with a constant headache, worse in the right frontal area, as well as nasal congestion, sore throat, and occasional dry cough. In the first week of her illness, she went to her community health clinic, where she received ibuprofen and a 10 day course of amoxicillin for a right ear infection. Her symptoms were slightly better after starting treatment, but she is still taking ibuprofen daily and is concerned that her earache has not resolved.

ROS: Denies fevers, chills, vertigo, visual changes, neck stiffness, nausea, or vomiting. Reports myalgia in bilateral upper extremities. Otherwise negative.

PMHX: No chronic problems, hospital admissions, or surgery.

MEDICATIONS: Ibuprofen.

SOCIAL HX: She is a college student and works part-time as a waitress. She lives with roommates and has family in the area. She drinks occasionally and does not smoke.

PHYSICAL EXAM

VITAL SIGNS: Temp 98.0, Pulse 66, BP 158/112, RR 18, 98% on RA.

GENERAL APPEARANCE: Pleasant, well-dressed, African-American female sitting comfortably on bed.

HEAD/NECK: Normocephalic, atraumatic. Neck supple and nontender.

EENT: Pupils equal and reactive, EOMI. Ear canals patent with clear tympanic membranes. Nasal sinuses erythematous with post-nasal drip. Moist mucous membranes, no exudate, no lymphadenopathy.

HEART: Regular rate and rhythm. No murmurs or JVD.

LUNGS: Clear bilaterally with good air movement.

ABDOMEN: Soft and non-tender, with no palpable masses.

EXTREMITIES: Well-perfused with pulses palpable in all four. No edema.

NEUROLOGIC: Alert and appropriate. Speech clear and articulate. Steady gait.

ED COURSE: Given the associated sinus congestion, sore throat, and myalgia, with normal vital signs and no concerning physical findings, it was felt that the patient likely had a viral illness. She received a prescription for fluticasone nasal spray for symptomatic relief of her rhinitis. Ibuprofen, fluids, and rest were encouraged. She was instructed to return if her symptoms did not improve within 1 week or if she had new concerns.

FOLLOW UP:

The patient returned home after filling her prescription, and her sinus congestion and sore throat gradually improved. However, the ache in her shoulders worsened, and the ear pain and headache persisted. She returned to the ED 10 days after her first visit. After waiting for several hours she left without being seen. Two weeks later, she again returned to the ED, now reporting

increased headache, vomiting, and blurred vision in her right eye. She had a persistent, constant frontal headache, accompanied by earache and pulsatile tinnitus worse on the right. For the past four days, she began to develop increasingly blurred vision in the right eye, associated with nausea and vomiting. On exam, she was anxious and uncomfortable. She was found to have light-perception only in the right eye. Her left eye had normal visual acuity with narrowing of upper nasal visual field. She also had a bilateral afferent pupillary defect and significant bilateral papilledema. Non-contrast brain CT showed no hemorrhage, mass lesions or midline shift. Lumbar puncture was then performed under fluoroscopic-guidance by interventional radiology. With the patient relaxed and in a prone position, the opening pressure up entering the subarachnoid space at the L3-4 level was measured at 530 mm/H2O. Sixteen cc of clear cerebrospinal fluid was released, with the patient reporting decreasing headache during the procedure. Closing pressure was 300 mm/H2O. Cerebrospinal fluid composition was normal. The patient reported resolution of her headache by the time the procedure was completed, with only slight improvement in right eye light perception. She was admitted to the neurology service and started on acetazolamide.

The next day, the patient’s headache returned, and a repeat lumbar puncture showed the opening pressure to be again elevated to 500 mm/H2O, decreased to 250 mm/H2O after drainage of 25 cc of CSF. An MRI and MRV of the brain were performed, showed focal narrowing of the left transverse and sigmoid venous sinuses with development of collateral circulation. Similar but milder findings were noted in the right venous system. There was no thrombosis in the venous sinuses. Neuro-ophthalmology was consulted for possible fenestration of the optic nerve sheath. Given nearly

Risk Management Course Available on MACEP Website

MACEP's *Risk Management in Emergency Medicine* course continues to be available to emergency physicians on our website. Those completing this course will be able to recognize and explain the clinical aspects of risk management that comes from this practice oriented education program. In addition to providing 6 CME credits, MACEP has developed a malpractice premium discount program for physicians insured by ProMutual/ProSelect. To learn about the requirements and how to take the course, go to www.macep.org.

complete loss of vision in the right eye, it was felt that the risk of losing total vision by bilateral optic nerve sheath decompression exceeded the potential benefit to the remaining functional eye. Neurosurgery was then consulted for placement of a CSF shunt. A lumboperitoneal shunt was performed, and the patient's pain gradually improved. After 3 days, her vomiting had resolved, and her earache, headache, and shoulder pain had improved. There was no improvement in her right eye vision. She was discharged home seven days after admission in stable condition, with plans to follow up in the neurosurgery, neurology, and neuro-ophthalmology clinics. Vision in the right eye remains limited to the perception of light.

QUESTIONS

1. Can pseudotumor cerebri still be called "idiopathic" intracranial hypertension, with improved imaging by pulse contrast MRV showing more cases of cranial venous system abnormalities?

The nomenclature and terminology for the syndrome of increased intracranial pressure without a space-occupying lesion has changed over the years. Classically known as *pseudotumor*

cerebri (PTC), current classification depends on the presence or absence of an underlying cause. Myriad primary causes have been associated with intracranial hypertension, including cerebral venous sinus thrombosis, radical neck dissection with jugular vein removal, hypoparathyroidism, systemic lupus erythematosus, renal disease, and side effects from various drugs, particularly vitamin A and other tetracycline-related compounds. When no primary cause can be found, the syndrome is termed *idiopathic intracranial hypertension (IIH)*. The diagnostic criteria for idiopathic intracranial hypertension are met in the patient with signs and symptoms of increased intracranial pressure or papilledema, who demonstrate: *elevated ICP measurement*, with *normal CSF composition*, and *no lesion on imaging*. The most recently published criteria for diagnosis of idiopathic intracranial hypertension requires neuroimaging to include contrast-enhanced CT or MRI to rule out ventriculomegaly, mass, structural, or vascular lesion. Debate over the role venous outflow abnormalities might play in elevating intracranial venous sinus pressures has even included trials of stenting stenotic venous sinuses. However, manometric studies show that pressure gradients across stenotic sites in the venous sinuses are corrected by CSF removal, and venous sinus narrowing may simply be secondary to the increased CSF pressure. Whether stenosis of dural venous conduits is the "chicken or the egg", the finding has been reported in 93% of patients with IIH studied with three-dimensional contrast-enhanced MRV, suggesting that it may be relatively sensitive and specific for confirmation of the diagnosis of IIH.

2. What is the pathophysiology of idiopathic intracranial hypertension?

First described in 1897, early theories

proposed that elevated ICP was due to interstitial cerebral edema, which increases brain compliance and prevents hydrocephalus. However, patients with IIH do not show the altered alertness, cognitive dysfunction, or focal neurological deficits associated with other disorders that elevate ICP, and pathologic findings do not support interstitial edema. The leading theory at this time attributes IIH to increased resistance to cerebrospinal fluid outflow at the arachnoid granulations lining the dural venous sinuses. Thus, CSF production and reabsorption rates are equal, but a higher than normal pressure is required to achieve bulk flow of CSF due to increased resistance.

3. What are the demographics of idiopathic intracranial hypertension?

Incidence in the United States has been estimated at 0.9 per 100,000 population. The disorder is nine times more common in women than men, and in women 20% over ideal weight, between 15 and 44 years of age, incidence is estimated at approximately 20 per 100,000. Most reports show headache in almost all patients with IIH, but a clinical characterization of IIH in Detroit published in 2004 found that 25% of patients initially presented asymptotically at routine ophthalmic examination.

4. What are the clinical features of idiopathic intracranial hypertension?

Symptoms of elevated ICP:

Headache - typically daily, retroocular, and worse with eye movement.

Diplopia - usually binocular and horizontal, due to paresis of the abducens muscle.

Intracranial noises - 60% of patients have pulsatile tinnitus, unilateral or bilateral, often described as a heartbeat or whooshing sound.

Other symptoms - parasthesias, facial palsy, neck stiffness, upper extremity arthralgias, ataxia, nausea and vomiting.



Symptoms of papilledema:

Transient visual obscurations - brief episodes of monocular or binocular visual loss.

Tunnel vision - progressive peripheral vision loss in one or both eyes, usually starting in the nasal inferior quadrant.

Visual loss - often reported as blurred vision or a dark spot, occasionally total loss of vision.

Physical examination signs based on ocular examination:

Papilledema is the hallmark physical finding, with the Frisen scale, based on degree of disc and vessel obscuration, used to grade the level of papilledema. Various degrees of abnormalities are also found on *visual field, visual acuity, color vision, ocular motility, and diplopia* testing.

5. How accurate is ICP measurement in the ED?

ICP varies with age, body posture, and clinical conditions. It is important to remember that ICP in most cases also varies with time. Although transcranial Doppler ultrasound is a promising method for estimation of ICP, accuracy to date has not been satisfactory. The gold standard of ICP measurement in neurointensive care is via an intraventricular drain connected to an external pressure transducer and averaged over at least half an hour. Lumbar puncture may give an accurate measurement of ICP, but if proper precautions are not taken it may be misleading. In adults placed in the lateral decubitus position, LP opening pressures are usually below 150 mm of water. Levels between 200 mm and 250 mm are considered nondiagnostic, with levels above 250 mm generally considered pathologic. In a retrospective review of LP performed for headache evaluation in the ED, opening pressure was recorded in only 28/168 patients, with half of these patients having pressures greater than 200 mm of water and 10/28 having a pressure over 250 mm of water. None of these patients had

other features of IIH and all were discharged with a diagnosis of benign headache disorder. It has been postulated that ICP levels are higher in the emergency department because of pain, anxiety, movement, speech, or valsalva maneuvers. In the seated position, which is generally preferred in obese patients with difficult landmarks, the column of fluid above the lumbar entry point will add approximately 500 mm of water pressure. Measurements in the prone position during fluoroscopic guidance may also be falsely elevated due to increased pressure on the abdomen. To increase the accuracy of measurement, it is recommended that once the spinal needle is placed, the patient should be rolled from either the seated or prone position into lateral decubitus and allowed to relax before measurement.

6. How is idiopathic intracranial hypertension managed in the ED?

In patients presenting to the ED with headache, it is imperative to consider IIH along with other potentially serious or life-threatening causes. While there is no known specific mortality risk to IIH, the morbidity of permanent visual loss may be a serious liability in missed diagnosis. Lack of visual symptoms and no papilledema on fundoscopic examination should be clearly documented. In IIH patients with headache and mild papilledema, in whom visual acuity and field are normal, outpatient management is appropriate. Typical treatment includes analgesics, weight loss, a low salt diet, and diuresis using acetazolamide or furosemide. Visual acuity, field and papilledema grade should be closely monitored. In obese patients with stable visual symptoms, bariatric surgery may be an option for long-term management. In cases of severe papilledema, marked visual abnormality or rapid progression ("malignant" IIH) aggressive measures may be instituted in an attempt to prevent permanent visual loss. Early neuro-

logy, neuro-ophthalmology, and/or neurosurgery consultation is recommended, and patients are admitted for management including high dose acetazolamide, IV corticosteroids, and repeated LPs. Surgical options of CSF shunting or optic nerve sheath fenestration are promptly indicated if visual symptoms do not improve within hours to days. Neurosurgeons will typically perform a lumboperitoneal shunt, but at some centers ventricular shunts are preferred because they can be monitored with a compressible bulb and may have less risk of obstruction. The ophthalmologic approach may be best for failing vision, but its mechanism is not well understood and the efficacy of different approaches has not been prospectively evaluated.



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Massachusetts College of Emergency Physicians

2005 Calendar of Events

April 12

MACEP Board Meeting
Radisson Hotel, Marlboro
4:30 - 6:30 pm

April 17-21

ACEP Leadership & Advocacy
Conference
Loews L'Enfant Plaza Hotel
Washington, DC

May 11

MACEP Annual Meeting
Crowne Plaza Hotel, Natick
7:30 am - 5:30 pm

June 9

Advances in Emergency Care of
Sexually Assaulted Patients
MMS Conference Center, Waltham
8 am - 1 pm

September 27

Capitol Hill Rally
West Lawn, Capitol Hill
Washington, DC
10-11 am

***For more information,
call us at (781) 890-4407 or visit www.macep.org.***

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