Medical training and inpatient care

The research article[1] by Pimlott et al shows a clear correlation between exposure to inpatient care during training and provision of inpatient care in practice. The question that is not addressed in the discussion is the selection process that results in residents' being exposed to inpatient care.

Perhaps residents who planned to do inpatient care in their careers simply selected a training program that provided them with these skills.

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Diagnosing ectopic pregnancy

The case report[1] on atypical ectopic pregnancy and culdocentesis by Drs Herd and Sokal represents a pragmatic approach to diagnosing intraperitoneal hemorrhage in an unstable patient. Although clearly not the focus of their article, failure to diagnose ectopic pregnancy earlier when the patient was stable merits comment.

Complications during the first trimester of pregnancy (vaginal bleeding or abdominal pain in the first 12 weeks of pregnancy) are a common problem in both emergency medicine and primary care.[2,3] Incidence of ectopic pregnancy in this situation depends on the population studied and ranges from 1% in rural general practice to 13% in urban emergency departments.[2,4] Ectopic pregnancy cannot be ruled out in these patients through clinical signs.[5-7]

Approximately a third of ectopic pregnancies first present in a stable fashion, indiscernible from simple threatening abortion.[8] Hence these patients need to be evaluated with ultrasound, and serum levels of β-human chorionic gonadotropin (β-HCG) must be ascertained. If β-HCG is above a threshold level (1500 IU/L for transvaginal scanning or 6000 IU/L transabdominal), an intrauterine pregnancy should be apparent on ultrasound.[9] Failure to see it is diagnostic of ectopic pregnancy.[10,11] Ultrasound findings must be interpreted in light of β-HCG value.[1,4] Patients with β-HCG levels below threshold levels can be managed expectantly with serial tests, repeat scanning, and close clinical follow up.[11,12] Completed abortion should be confirmed by pathology from uterine curettage, laparoscopy, and rapidly falling serial β-HCG.[7,11,14]

The case report makes no mention of β-HCG levels, and the patient presented in shock from intraperitoneal hemorrhage 9 days after an ultrasound scan was interpreted as completed abortion. Early diagnosis affords the possibility of medical treatment and tube-sparing surgery, and decreases the risk of life-threatening intraperitoneal hemorrhage, as seen in this case.[14,15] Physicians managing complications of the first trimester of pregnancy must maintain a rigorous diagnostic strategy to rule out ectopic pregnancy safely.

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Acute stroke management

On behalf of the Canadian Association of Emergency Physicians (CAEP), the following letter is the CAEP's official response to the articles on acute stroke management in the September 2001 issue.[1,2]

We congratulate the author of "Current management of acute ischemic stroke, Part 1[1] and Part 2"[2] for a concise summary of randomized controlled studies on thrombolysis in acute stroke. Comments that are particularly important are: "thrombolysis is an option for only a few stroke patients" and "thrombolysis must be carried out in centres prepared for neurosurgical intervention." These cogent restrictions are key to optimal stroke management.

The CAEP has published recommendations this year[3] encouraging restriction of thrombolysis to tertiary care centres using formal clinical practice protocols with outcome monitoring and to well constructed trials. A cohort study of patients in Cleveland, Ohio, has demonstrated the considerable risk of thrombolytics for stroke if they are used in the community without such restrictions.[4]

The National Institute of Neurological Disorders and Stroke study was quite positive for use of tissue plasminogen activator (tPA) for stroke,[5] but a recent analysis of NINDS data demonstrated that the actual benefit is almost completely restricted to patients treated within 90 minutes, not 3 hours as the original article stated.[6] This would make intervention almost impossible except in very rare cases. As Dr Herd has stated, the Cochrane meta-analysis by Wardlaw et al[7] was not a strong endorsement of tPA, given the other markedly negative thrombolysis studies. It suggested that this medication "may be associated with less hazard."

A national postmarketing database is accumulating cases of tPA in acute stroke. Its data are being held as proof of efficacy of tPA by those who support its use.[8] Unfortunately, as summarized by Hoffman in an editorial,[9] this database is not objective evidence. There is no way to ensure that all cases, especially those with negative outcomes, are reported, nor even that the results submitted are accurate. The database is of limited, if any, value.

There is no doubt that organized stroke care improves outcomes considerably.[10] Use of acetylsalicylic acid and the organization of stroke teams has been key in this, as stated by Phillips and Gubitz.[11] Thrombolysis has yet to be shown to hold anything more than a very limited role in treatment of this disease. Its benefits will be restricted to rare patients presenting within minutes of symptom onset to tertiary care centres (unless new data overturn the considerable information accumulated to date). We cannot support widespread emergency department use of thrombolysis for stroke with the data available.

We strongly endorse other therapies for which the benefits clearly outweigh the risks. These include use of ASA, prevention of aspiration, early rehabilitation, and establishment of stroke units and protocols. We also hope that further treatments will be forthcoming that benefit patients with this common and serious affliction.

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