Pseudomembranous colitis and co-trimoxazole

Pseudomembranous colitis is associated with antibiotic treatment. We report here its first published link with co-trimoxazole.

Case report

An 80-year-old woman was admitted to hospital with a fractured neck of the femur, which was managed by internal fixation. Antibiotic cover was not provided for the operation. On the sixth day after operation she developed a fever, which was clinically attributed to a urinary infection, although no organism was subsequently cultured. Treatment was started with co-trimoxazole (Septrin), two tablets twice daily. On the 15th day after operation the patient developed offensive diarrhoea, but the co-trimoxazole was not discontinued until the 20th day. Culture of the stool showed no pathogen, and the diarrhoea did not respond to symptomatic treatment (Kaomycin (neomycin sulphate and kaolin) on days 20-26; Lomotil (diphenyloxylate hydrochloride and atropine sulphate) on days 25-27).

A surgical opinion was sought on the 27th day. On examination the patient was ill and dehydrated. Abdominal examination showed nothing abnormal, but rectally large humps of mucosa could be felt. A barium enema examination showed a pancolitis with a cobblestone appearance suggestive of mucosal oedema. Rectal biopsy confirmed the typical histological appearances of fibrinous exudate on the mucosal surface mixed with mucus from distended crypts. The patient was treated with oral cholestyramine and parenteral nutrition. The diarrhoea did not remit and the patient died 32 days after operation. At necropsy the whole colon showed the changes of pseudomembranous colitis, the rectum and descending colon being the worst affected.

Comment

Pseudomembranous colitis is a rare complication of broad-spectrum antibiotic treatment.[1] Lincomycin and clindamycin are especially incriminated,[2] but the condition has also been reported after treatment with ampicillin, tetracycline, chloramphenicol, penicillin,[3] and, recently, amoxycillin.[4] The disease may be of viral origin,[5] and a shorter course of antibiotic does not seem to reduce its incidence.[6] The condition is often self-limiting, but parenteral nutrition and other supportive measures may be required. Rarely will total colectomy be indicated. Overall mortality is estimated at 10-20%.[2] Cholestyramine has been successfully used to treat pseudomembranous colitis.[7 8] It has recently been suggested[9] that the condition may be treated with the intensive intravenous regimen advocated by Truelove and Jewell[10] for acute exacerbations of ulcerative colitis.

This report emphasises the potential importance of diarrhoea in patients on antibacterial drugs and the potential hazards of "blind" treatment. Pseudomembranous colitis is uncommon, but this report suggests that yet another antibacterial agent may be implicated in its aetiology.

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SHORT REPORTS

Detecting wakefulness during general anaesthesia for caesarean section

It is possible for a patient to be awake during an operation without being able to tell anyone. This may happen when not enough general anaesthetic has been given but all movement has been abolished by a muscle relaxant. If a patient experiences events, pain, or unpleasant dreaming during an operation and remembers it afterwards it is called awareness.[1] Awareness is probably commonest under obstetric anaesthesia. Until the birth the mother is given as little general anaesthetic as possible to avoid depressing the baby. In these circumstances the anaesthetist needs a simple method of detecting consciousness during this short but critical period. This paper describes such a method.

Methods and results

Twelve mothers consented to take part in this trial. They agreed that recorded sound could be played during their caesarean section, that a blood pressure cuff could be left blown up on one arm for not more than 20 minutes, and that they could be interviewed the day after surgery for evidence of recall. Various anaesthetic sequences based on existing techniques were used.[1] A 14·5 cm wide blood pressure cuff on the right upper arm was inflated to 200-250 mm Hg either at induction of anaesthesia, and before the first dose of suxamethonium 100 mg, or after recovery of neuromuscular conduction and before the second dose of suxamethonium (50 mg given intravenously). Instructions on a tape recorder were then played to the patient at various intervals. The instructions told the patient to move her fingers or hand in a particular way and each was repeated slowly six times. Movements of the isolated forearm were recorded when they occurred, as was their relation to instructions from the recorder.

The women were grouped according to the greatest degree of movement of the isolated forearm that occurred in response to the surgical stimuli. One woman showed no movement, two showed slight and generally unsustained movement, and nine showed considerable and generally sustained movement. Four mothers in the third group moved their hands and fingers in precise and direct response to instructions transmitted via earphones. After the operation all the women denied dreaming and none could recall any intraoperative event.

Comment

The term awareness does not include the situation where the patient has been awake during surgery but unable to recall the fact. Wakefulness without recall occurs when the event has taken place either during amnesic levels of drug depression[2] or shortly before the induction of retrograde amnesia.[3 4]

The isolated forearm technique I have described allows the anaesthetist to take immediate action to abolish wakefulness. In obstetric surgery it is quite practical to inflate the cuff just before administering the muscle relaxant at induction. After circulatory occlusion the forearm retains motor power for 20 minutes.[5]

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