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Increasing incidence of Barrett’s oesophagus: education, enthusiasm, or epidemiology?

Andrzej T Prach, Thomas A MacDonald, David A Hopwood, David A Johnston

For unknown reasons, the incidence of oesophageal adenocarcinoma is rising rapidly in the UK\(^1\) and the USA.\(^2\) In particular, in Scotland, the incidence of oesophageal adenocarcinoma has risen from 3·0 per 100 000 in 1976 (age-standardised rate) to 4·6 per 100 000 in 1989.\(^3\) Barrett’s oesophagus is a premalignant metaplastic change in the lining of the distal oesophagus and is the only recognised risk factor for the development of oesophageal adenocarcinoma conferring a 30-125 times increased risk. Recognised risk factors for the development of oesophageal adenocarcinoma include obesity, reflux disease, and a first-degree relative with adenocarcinoma. Conflicting results have been reported regarding smoking and alcohol consumption. The prevalence of Barrett’s oesophagus is rising rapidly in the UK\(^1\) and the USA.\(^2\) Adenocarcinoma of the oesophagus has risen from 3·0 per 100 000 in 1976 to 4·6 per 100 000 in 1989.\(^3\) For unknown reasons* the incidence of oesophageal adenocarcinoma is rising rapidly in the UK\(^1\) and the USA.\(^2\)

Increasing incidence of Barrett’s oesophagus

In patients with haematuria, the presence of dysmorphic erythrocytes and erythrocyte casts in the urine is a sign of a glomerular source of the bleeding.\(^4\) For a reliable interpretation of the urinary sediment, a freshly voided urine sample is required to avoid changes of cellular morphology and disappearance of cells and casts. Several fixation methods have been proposed, but none has gained wide acceptance.\(^5\) We found that using CellFIX, a formaldehyde-based fixative, it was possible to preserve the sediment. We compared sediments from freshly voided urine with sediments fixed from the same sample.

Based on the results of a previous study of fresh urinary sediments from 107 patients with known nephrological or urological causes of haematuria, we chose a value of 40% dysmorphic erythrocytes as the cut-off point for differentiating between glomerular and non-glomerular haematuria. By including the presence of erythrocyte casts as an additional criterion in that study, the sensitivity for a diagnosis of glomerular haematuria was 88·1% and the specificity 100%.\(^6\) Urinary sediments were prepared by centrifuging 10 mL of urine for 5 min at 1500 rpm. The supernatant was decanted until less than 0·5 mL remained. One sample was examined by an experienced nephrologist within 3 h after voiding. Four drops of a second sample (about 0·2 mL) were put into a 2 mL plastic vial containing 0·2 mL of CellFIX (Becton Dickinson). The

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Fixation of urinary sediment

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second sample was stored at room temperature and examined after 7–10 days by the same observer, together with two sediments from other patients with haematuria to avoid recognition of the previously examined fresh sample. The percentage of dysmorphic erythrocytes was assessed by scoring 100 cells with a light microscope (×400) for erythrocyte casts.

46 patients who had been referred to the urology department with isolated haematuria were studied. There was a significant correlation between the percentage of dysmorphic erythrocytes in the fresh and fixed samples \( (r=0.87, p<0.0001) \). The mean difference (SD) of the percentual scores of dysmorphic erythrocytes was +2.9 (10.5)\%, not significantly different from zero. Of the 23 sediments scored as glomerular in the fresh sample only three were scored differently in the fixed sample (2 non-glmomlerular, 1 equivocal). None of the 20 non-glomlerular diagnoses was scored differently. Three sediments were scored as equivocal/repeat in both samples.

Fixation of the urinary sediment with CellFIX does not lead to deformation of erythrocytes or to disappearance of casts after storage for up to 10 days at room temperature. The small vials can easily be mailed.

Endotracheal tube caecostomy

Ken Harries, Ahmed A Shandall, Brian M Stephenson

Although the use of a caecostomy seems to be declining, it remains a valuable option. We describe a new approach for the creation and subsequent closure of a temporary caecostomy. A purse-string is placed in the caecum and the endotracheal tube and its balloon port are passed through the anterior abdominal wall, secured to the parietal peritoneum at a convenient position. On removal of the tube, the external opening of the fistula is plugged with a table-tennis ball. A stoma appliance is comfortably worn over this (figure) until the effluent dries up.

We treated seven patients over three years. All caecostomy fistula have healed without complications and were dry within 2 weeks of removal of the tube. At a median follow-up of 10 months there has been no recurrent fistulation to the anterior abdominal wall.

The usual approach in the formation of a caecostomy is to use a Foley catheter as the method of decompression. However, even the larger diameter catheters are prone to blockage, may be difficult to irrigate, and can be complicated by leakage and/or subcutaneous collections. An endotracheal tube, with its wider and rigid nature, avoids these problems. Our stoma care nurses also suggest that skin irritation is minimised. On removal of the endotracheal tube, the contour of a table-tennis ball fits snugly over the caecostomy fistula and acts as a valve allowing the escape of gas but hindering faecal loss. To date the fistulas have all closed quickly as compared with when Foley catheters are used where closure may take 6 or more weeks. When inoperable large bowel obstruction is encountered and the patient is not expected to survive more than a few days we feel that an endotracheal-tube caecostomy allows a more comfortable and dignified outcome than decompression with a stoma.


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