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IMAGE IN CARDIOLOGY

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Pneumopericardium following perianal fistula repair and sigmoidoscopy

A previously well 19-year-old man presented with a four-hour history of pericarditic chest pain and right sided neck pain within 24 hours of perianal fistula repair and rigid sigmoidoscopy. The procedure was performed under self-ventilating general anaesthetic with a laryngeal mask airway.

Examination revealed a loud precordial rub and surgical emphysema across the right side of the neck. ECG was normal. A chest radiograph showed an extensive pneumopericardium with pneumoretroperitoneum and pneumoperitoneum (see panel). His echocardiogram did not show any evidence of a pericardial collection or tamponade.

He was monitored on the coronary care unit, treated empirically with antibiotics because of an elevated white blood cell count and a presumed bacteraemia following surgery, and managed conservatively. Repeat chest radiographs after four days showed complete resolution of the pneumopericardium but persisting pneumoretroperitoneum. He was discharged home pain-free after six days.

It is important to recognise pneumopericardium as a differential diagnosis in chest pain as it is a potentially life threatening condition by causing tamponade and haemodynamic compromise. Ideally this and a coexisting pericardial effusion should be excluded on echocardiogram. Depending on the source of the air leak, infection is an additional risk. It would appear most reported cases are traumatic in origin. However, it has been reported following colonoscopy and even spontaneously.

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