Lesson of the Week

Bacterial endocarditis: a complication of gastroscopy

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Fibreoptic gastroscopy is a valuable and widely used diagnostic procedure. Certain complications such as perforation and haemorrhage are well recognised, but the risks of bacterial endocarditis are less appreciated. We report on a man in whom this complication developed.

Case report

A 45 year old Pakistani man presented on 10 October 1986 with a two week history of fevers, lethargy, anorexia, and weight loss. He had a history of rheumatic fever in childhood, and an asymptomatic murmur due to mitral incompetence had been noted in 1976. On 9 September he was investigated for dyspepsia by fibreoptic gastroscopy, which showed duodenitis and mild distal oesophagitis. Oesophageal biopsy showed minimal inflammatory changes. He had last visited a dentist two years previously.

On examination he had a fever, a sinus tachycardia, and an apical pansystolic murmur due to mitral incompetence but no heart failure. He did not have splinter haemorrhages, splenomegaly, or microscopic haematuria. His dentition was good apart from mild marginal gingivitis around the molars. Culture of blood yielded growth of an α haemolytic streptococcus, identified as *Streptococcus sanguis*, which was sensitive to penicillin. Echocardiography showed prolapse of the posterior leaflet of the mitral valve, which seemed to bear vegetations. He was treated with intravenous benzylpenicillin and gentamicin, his fever settled, but his mitral incompetence worsened and mild heart failure developed. Consequently, after 10 days the mitral valve was replaced. At operation the mitral cusps were thickened and the posterior cusp had prolapsed owing to a ruptured chorda tendina; the anterior cusp bore vegetations. The patient made an excellent recovery thereafter.

Discussion

Bacteraemia with commensals from the upper respiratory tract has been shown in up to 10% of patients undergoing gastroscopy. Biopsy does not seem to influence these findings,¹ suggesting that disturbance of the dentition during gastroscopy causes the bacteraemia.

A retrospective survey in the United States reported four possible cases of endocarditis as a complication of endoscopy, but the details were not given.² A more recent case report was criticised because the endoscopy had been followed by an abdominal operation four days later.³ Among 582 patients with bacterial endocarditis reported on in a collaborative study in the United Kingdom three were listed as having had a gastroscopy recently,⁴ of whom one had a biopsy and one had overt dental sepsis. Because of these cases and our findings

Patients at risk of developing bacterial endocarditis should be given prophylactic treatment before gastroscopy, whether or not they are likely to undergo biopsy

we think it advisable to consider whether a patient is at risk from endocarditis before performing gastroscopy. We recommend prophylaxis as outlined by a working party of the European Society of Cardiology⁵ for all patients who are at risk, regardless of whether biopsy is contemplated or not.

References

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Are alcohol free wines and beers hazardous to health? Can they be recommended as safe alternatives for patients with alcohol problems?

There is no evidence that "alcohol free" wines and beers are hazardous to health. Most contain small amounts of alcohol—for example, 0.05-1.0%—but large quantities of such beverages would need to be consumed to cause intoxication or harm health.

For patients with mild or early alcohol related problems in whom reduction rather than cessation of alcohol intake is indicated such beverages are helpful. They may be interspersed with drinks containing alcohol. The advisability of alcohol free wines and beers in those whose goal is abstinence is arguable—there being no firm evidence, only clinical impressions. These drinks may slow up the change of lifestyle that is sometimes necessary—for example, in people who continue to buy regular rounds at the pub and are thus only a few steps away from relapse. Such people should avoid those drinking environments. A person's drinking companions may not think that he or she has truly stopped drinking and so continue to persuade him or her to take alcoholic drinks. There are, undoubtedly, patients who benefit from alcohol free wines and beers: they find them more palatable than other soft drinks, which tend to be too sweet. Furthermore, abstainers may not wish to invite speculation about why they are refusing alcohol—for example, when meeting with business acquaintances.

Patients taking Antabuse should not take these beverages. Though the alcohol content is not sufficient to produce a serious reaction, some toxic effect may still be generated.—JONATHAN D CHICK, consultant psychiatrist, Edinburgh.

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