Clinical Challenge 8:

A 16 year old girl was referred to your outpatient department with 3 months history of abdominal pain, nausea and vomiting. She has told you that she had unintentional weight loss of about 3-4 kg in the last few months. She has been started on Omeprazole and Gavisgon by her GP about 4 weeks ago, however there were no significant improvement of the symptoms. She has reported that she smokes about 4-5 cigarettes a day and she consumes alcohol time to time. She is sexually active and is on oral contraceptive pills for the last two years. There were no other specific gastro intestinal symptoms. There was no history of any significant illness in the past. Physical examination was unremarkable other than mild pallor. The initial blood tests showed Hb 9 with normal platelets and white cell counts, CRP, amylase liver and renal function tests. OGD showed marked hypertrophied gastric body folds with multiple ulcerations in the gastric body and antrum. Oesophagus and duodenum appeared normal. US abdomen raised a suspicion of stomach wall thickening. CT abdomen showed wall thickening at the great curvature of stomach with regional lymphadenopathy. No other abnormalities were noted. Following this a Mantoux test, chest X ray and T-spot test were done- all negative for Tuberculosis. HIV screen was negative.

What is the diagnosis?

Answer to Clinical Challenge 8

The correct answer is **Syphilis gastritis**.

Gastric biopsies showed marked lymphoplasmacytic infiltrate with polymorphonuclear leukocytes in the submucosal layer. The Venereal Disease Research Laboratory test and fluorescent treponemal antibody absorbed tests were positive .The patient's boyfriend was tested and syphilis was confirmed. The patient and her boyfriend were treated with 3 shots of benzathine penicillin G injection (2,400,000 IU per injection) once a week for 3 weeks. After treatment, gastrointestinal symptoms were resolved.

Syphilis is a sexually transmitted disease caused by the spirochetes Treponema pallidum. Syphilis can involve the skin, bone, central nervous system, and visceral organs. However, syphilitic gastritis is rare and difficult to diagnosis. It might occur in the second or third stage of untreated patients. It frequently occurs in younger males.

OGD may show nonspecific findings such as diffuse oedema, erythema, erosions, and ulceration from fundus to antrum. In its early stages, syphilitic gastritis usually has no radiologic findings; however, as the infection progresses, diffusely thickened folds may become nodular with or without detectable ulcers and the inflammation results in fibrosis of the gastric wall. Syphilitic gastritis may mimic adenocarcinoma or lymphoma. Moreover, in its late stages, organisms are frequently difficult to detect in biopsy specimens. Upper gastrointestinal series show an “hourglass”- or “dumbbell”-shaped stomach owing to fibrotic narrowing. On computed tomography, hypertrophic and irregular fold thickenings are predominantly noted from the prepyloric antrum to the lower body. Patients with positive serologic findings require treatment with penicillin. After treatment, most of them (83%) demonstrate rapid resolution of their symptoms.

Further reading

Mylona, E.E., Baraboutis, I.G., Papastamopoulos, V. et al. Gastric syphilis: a systematic review of published cases of the last 50 years. Sex Transm Dis. 2010; 37: 177–183