The iminodibenzyl anti-depressants seem generally safe, except in association with a monoamine oxidase inhibitor or alcohol (Lockett and Milner, 1965). Amitriptyline and nortriptyline appear more likely to cause potentially dangerous atropine-like side-effects than imipramine or desipramine. It may be that the atropine-like effects of amitriptyline and nortriptyline commonly cause constipation and may precipitate adynamic ileus.

Accordingly the prudent physician might initially prescribe imipramine or desipramine for the treatment of mild and early depressive states, later changing to another anti-depressant only if this were indicated. E.C.T. is probably the treatment of choice for moderate to severe depressions (Robin and Harris, 1962; Greenblatt *et al.*, 1964; Lockett and Milner, 1965; Medical Research Council Psychiatric Committee Report, 1965).

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Rheumatoid Arthritis Presenting with Laryngeal Obstruction

Brit. med. J., 1966, 1, 842

In recent years there has been an appreciation of the clinical manifestations of cricoarytenoid arthritis and the frequency of its occurrence in rheumatoid disease (Montgomery, 1963; Wolman, Darke, and Young, 1965). The gamut of symptoms includes sensations of fullness and tightness in the throat, dysphagia, pain with speech, dyspnoea, and stridor. In a small proportion of cases there occurs airway obstruction of sufficient degree to warrant an emergency tracheostomy. On visualization of the larynx, redness and swelling over the arytenoids are noted in the acute stage, and roughness and thickening of the mucosa and fixation of the arytenoids with various degrees of narrowing of the glottic chink in the chronic stage. The incidence of cricoarytenoid involvement among patients attending an arthritis clinic was 26% as determined by indirect laryngoscopy (Lofgren and Montgomery, 1962). Seven out of eight patients with rheumatoid arthritis on whom necropsies had been performed showed pathological evidence of cricoarytenoid arthritis (Bienenstock, Ehrlich, and Freyberg, 1963). Most cases have been found among patients with long-standing affection of other joints (Wolman *et al.*, 1965). The appearance of laryngeal disease as the first manifestation of rheumatoid arthritis has not, to our knowledge, been reported. Such a case is described below.

CASE REPORT

In October 1962 a 54-year-old man, previously healthy, developed dyspnoea and stridor. This progressed rapidly, leading to emergency hospitalization after several days. On laryngoscopy the vocal cords appeared thickened and moved poorly. The glottic chink was markedly narrowed. Tracheostomy was performed immediately. On subsequent examinations over the next 10 days there was little change.

Multiple biopsies from the cords and surrounding tissues showed "chronic inflammation." With the tracheostomy tube still in place, the patient returned to work and was well until March 1963, when he developed a cough and sore throat. After two weeks of antibiotic treatment his upper respiratory symptoms had improved, but he had a rather sudden onset of severe joint pain and swelling. He

was admitted to hospital and improved after treatment with cortisone, but the joint symptoms recurred when attempts were made to discontinue the medication. In August 1963, on admission to the Lemuel Shattuck Hospital, a diagnosis of rheumatoid arthritis was made on the basis of swelling and limitation of motion in multiple joints, rheumatoid nodules, positive latex-fixation test, and characteristic radiographic changes. On laryngoscopy under general anaesthesia there was no active or passive motion at either cricoarytenoid joint; the glottic chink was narrow but adequate. There was a nodular swelling at the posterior aspect of the right cord. Biopsy from this area showed a chronic inflammatory reaction with infiltration of lymphocytes, histiocytes, and plasma cells. His tracheostomy tube was removed without recurrence of respiratory distress, but the stoma has not closed completely after two years. Progressive deformity during this period has confirmed the diagnosis of rheumatoid arthritis.

COMMENT

The patient had no joint symptoms until five months after the appearance of laryngeal obstruction severe enough to require a tracheostomy. In view of later laryngoscopic findings typical of chronic cricoarytenoid arthritis it is reasonable to suppose that his earlier obstruction was due to acute cricoarytenoid involvement, though the diagnosis was not made at the time.

Chronic laryngeal symptoms and acute obstruction may have many causes. The physician should consider cricoarytenoid arthritis even in patients without urgent or obvious joint signs and symptoms; careful inquiry and examination may reveal evidence of mild arthritis. The diagnosis can usually be made without difficulty by indirect laryngoscopy. The present case points out that the cricoarytenoid joint may be, as is true for virtually every other joint in the body, the site of the initial appearance of rheumatoid arthritis.

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