Myasthenia Gravis, Ulcerative Colitis and Lichen Planus

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Mr B L, aged 35. Garage proprietor

History: 1956, developed ulcerative colitis and was treated with prednisolone for six months; only minor subsequent symptoms. 1960, lichen planus developed, and was exacerbated in 1968 after prolonged penicillin treatment for sinusitis. February 1969, he developed myasthenia gravis with initial ocular presentation; striated muscle, thyroid, antinuclear and gastric antibodies found, but no LE cells. Thyroid function tests and mediastinal tomograms, normal. Anticholinesterase treatment initially was successful.

June 1969, severe relapse and respiratory difficulty despite full treatment. Tetracosactrin depot 0·6 mg alternate days was given: vital capacity decreased further, and intermittent positive-pressure ventilation was required three days later: anticholinesterases were withdrawn. After ten days a remarkable improvement in power occurred.

The subsequent course was stormy, with a staphylococcal septicæmia and pulmonary abscesses treated with fusidic acid and cephalothin. Tetracosactrin was tailed off after 90 days: ten days later ulcerative colitis relapsed but responded to treatment with prednisolone retention enemas, prednisone and sulphasalazine. Apart from transient diplopia in May 1970 he has had no further myasthenic symptoms and is in full-time employment. He still takes prednisone 10 mg daily.

September 1969, December 1970: Barium enema showed total colitis.

Discussion

The relationship of myasthenia gravis with thymic tumours or hyperplasia is well documented, often with associated thyroid disease, pernicious anæmia, rheumatoid arthritis, or autoimmune hæmolytic anæmia; systemic lupus erythematosus (SLE) has been reported with increasing frequency. Ulcerative colitis may be complicated by a chronic active 'lupoid' hepatitis, and has been reported with scleroderma and thymoma. Lichen planus is not normally associated with other diseases, but Copeman *et al.* (1970) have recorded 4 cases in which the features of lichen planus overlapped with those of lupus erythematosus: 1 died of acute SLE and the course in 2 others has suggested that disease. Alarcón-Segovia *et al.* (1963) reported 2 cases of myasthenia: the first patient was a 38-year-old woman who developed acute polyarthralgia, with positive LE test and diarrhœa, six years after removal of a hyperplastic thymus; the second patient, more fully reported by Galbraith *et al.* (1964), was a 14-year-old girl with chronic ulcerative colitis three years after removal of a hyperplastic thymus who, while on treatment with sulphasalazine, developed a rash with positive LE tests; liver biopsy showed features of lupoid hepatitis and cirrhosis. Beutner *et al.* (1968) reported 2 cases of myasthenia, one with malignant thymoma, pemphigus erythematosus and butterfly rash, one with pemphigus vulgaris, and noted 3 other cases; they discussed the possibility that pemphigus erythematosus may combine pemphigus vulgaris and SLE.

In the light of these reports, the occurrence of myasthenia gravis, ulcerative colitis and lichen planus in one patient suggests the possibility of underlying pathology, especially in the presence of smooth-muscle antibodies. It is our experience that such results may antedate other tests for autoimmune disease.

Treatment: In myasthenia treatment with anticholinesterases sometimes becomes less effective, and complicated by muscarinic side-effects. Intermittent positive-pressure ventilation (IPPV) and rest may produce a remission. A different approach to the pathophysiology has been the use of corticotrophin and steroids. Since Soffer *et al.* (1948) and Torda & Wolff (1949, 1951) used ACTH, short courses (10–14 days) of corticotrophins have been reported to produce a deterioration followed by an inconstant remission after treatment. Cape & Utterback (1969) have suggested that weekly or twice-monthly maintenance injections may produce a sustained improvement. Warmolts *et al.* (1970) report a three-month remission on prednisone 100 mg alt. die. In a series of patients with ocular myasthenia (Gibberd *et al.* 1971) the necessity has been shown of continuing treatment with corticotrophin for longer than usually stated, with an extensive continuing remission. Mr B L is still in remission at 18 months.

Corticotrophin, whether ACTH or tetracosactrin, should not be used without facilities for IPPV, because of the common initial deterioration. Hypokalæmia, fluid retention, and secondary infection may occur.

The value of steroids and sulphasalazine in ulcerative colitis is established (Truelove & Witts 1959, Lennard-Jones *et al.* 1965) but we have been reluctant to reintroduce sulphasalazine because of the previous rash. As here, local and systemic steroids are usually effective in lichen planus.

Prognosis: To date, there is no evidence of thymic enlargement in this patient, and further investiga-

tion is being deferred while he remains in remission on steroids. Because of the possibility of unmasking SLE one should hesitate to advocate thymectomy when the presence of other conditions suggests latent disease; rather, let sleeping wolves lie.

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Wegener's Granulomatosis

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When a midline granuloma is complicated by widespread extranasal arterial disease a systemic disease like polyarteritis nodosa occurs. This combination is called Wegener's granulomatosis. Further details can be obtained from reviews by Friedman (1964) and Mills (1964). A florid example is presented.

Mr S C, aged 50

History: January 1967, profuse epistaxis followed by catarrh, facial pain, stuffy nose and yellow discharge. Treated with oxytetracycline and antihistamines. Late in January he suffered severe flitting joint pain involving shoulders, knees and ankles and limb stiffness worse after rest. With this he had tachycardia, fever, sweats, shivering bouts, anorexia and weight loss; ESR 82 mm in 1 hour (Westergren). Salicylates did not help.

On examination (late February 1967): He looked ill, flushed, and in pain, with reddened eyes, numerous subungual splinter hæmorrhages and a purpuric rash on elbows and buttocks. Pulse 120/min, temperature 101°F (38·3°C), blood pressure 130/80. Loss of sensation was detected in the right middle finger.

Investigations: Hb 78%, WBC 11,000/mm³ (eosinophils 9%), ESR 100 mm in 1 hour (Westergren), urine protein and red cells culture sterile, urea 53 mg/100 ml, ASOT 500 units, C-reactive protein positive, skin biopsy characteristic of anaphylactoid purpura. Normal results for serum electrolytes, liver function tests, creatinine phosphokinase, rheumatoid and antinuclear factors, LE cells, muscle biopsy, ECG, sinus and chest radiographs.

Course, progress and treatment: He had rigors and developed necrotic punched-out ulcers on palate, side of tongue and left knee. A diagnosis of acute hypersensitivity arteritis with Henoch-Schönlein purpura was made. The initiating factor was presumed to be a nasal infection, possibly streptococcal. Prednisone 60 mg daily and penicillin were prescribed. His blood urea rose to 140 mg/100 ml so his protein intake was curtailed. He improved as regards symptoms, the ulcers healed, and blood count, urea and ESR became more normal. He was discharged on 7.4.67, taking prednisone 15 mg and penicillin V 250 mg twice daily. During the year he had episodes of episcleritis, corneal infiltration and one bout of parotid swelling.

On a regime of prednisone 10–30 mg daily he kept well until April 1969, when nasal symptoms returned with rise of ESR to 46 mm in 1 hour (Westergren) and an abnormal sinus radiograph. He was seen by Mr P Winston who found extensive erosion of the nasal septum and antronasal walls. Biopsies showed nonspecific granuloma with œdema, central necrosis, histiocytes and a few giant cells, a picture consistent with Wegener's granulomatosis; this opinion was later confirmed by Professor I Friedman. Later in 1969 he developed otorrhœa, anosmia, numbness of right foot and palate, and had recurrent purpura and indurated papular lesions on the legs and chronic pompholyx-like vesicles on the hands. In August 1969 he was given 4,000 rad to the nasal area over three weeks. He improved and returned to work.

December 1970: though he had no chest complaints, chest X-ray showed cavities in both lungs. ESR 80 mm in 1 hour (Westergren), Hb 10·7 g, blood urea 79 mg/100 ml. His proteinuria remains but he is not hypertensive. Prednisone dosage is about 15 mg daily.

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