MUCOUS MEMBRANE PEMPHIGUS

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PEMPHIGUS affecting the mucous membranes of the mouth and throat is a rare disease. At times it may pass undiagnosed especially if there are no associated lesions in the skin or mucous membranes elsewhere in the body.

Classification

The exact relationship of the various forms of pemphigus is still in doubt, but the following classification, based on the histological appearances of the lesion, was suggested by Lever (1953).

True Pemphigus (Intra-epidermal bulla)	Pemphigoid (Sub-epidermal bulla)
1. Pemphigus vulgaris malignus (Acute pemphigus vulgaris) Pemphigus vegetans	1. Bullous Pemphigoid (Chronic pemphigus vulgaris)
2. Pemphigus foliaceus Pemphigus erythematosus	2. Benign Mucous Membrane Pemphigoid (Pemphigus conjunctivæ) (Ocular pemphigus) (Essential shrinkage of conjunctiva)

Incidence of Mouth and Throat Lesions

The mucous membranes of the mouth and throat are commonly involved both in acute pemphigus vulgaris (nearly 100 per cent.) and in ocular pemphigus (90 per cent.) but are much less frequently affected in pemphigus foliaceus (7 per cent.) and in bullous pemphigoid (34 per cent.) (Lever, 1953).

Costello *et al.* (1957) have drawn attention to the high incidence of cases where the disease starts in the mouth (55 per cent.); in these cases the oral lesions may precede cutaneous or other mucosal lesions by weeks, months or occasionally years. They felt that dentists and laryngologists should be constantly on the look-out for primary pemphigus lesions in all cases of bucco-pharyngeal ulceration, and stressed the importance of early diagnosis and prompt treatment with corticosteroid drugs.

Primary oral lesions are, however, extremely rare in pemphigus foliaceus and bullous pemphigoid and these conditions will not be considered further.

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Histology

Acute pemphigus vulgaris and ocular pemphigus can be separated histologically by examination of intact bullae; early diagnosis is essential as both groups differ greatly in clinical features, prognosis and complications. The histological differentiation is the result of the work of Civatte (1943). He discovered that the lesions of pemphigus vulgaris show degenerative changes in the epidermis leading to a disappearance of the intercellular partitions; to this he gave the name acantholysis. The cellular break-down leads to the formation of intra-epidermal clefts which enlarge to form bullae. These normally form immediately superficial to the basal layer of the epidermis (Fig. 1). Detached epidermal cells showing degenerative changes lie free in the cavity of the bullae.

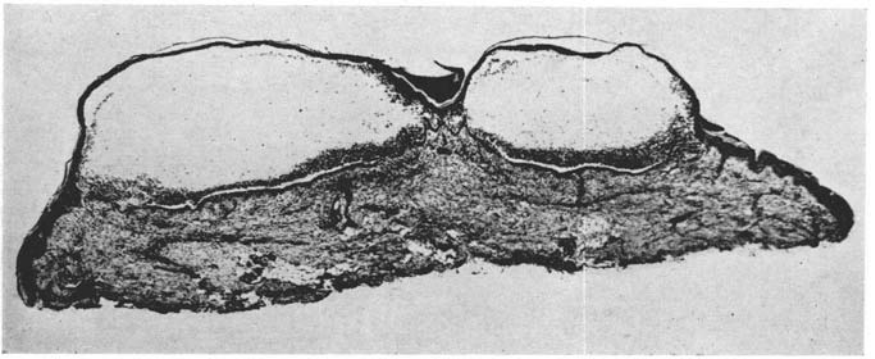


FIG. 1.
Pemphigus vulgaris: intra-epidermal bullæ with splitting of the layers of the epidermis. (Case I.)

In ocular pemphigus, all changes are sub-epidermal. The bullae result in detachment of the entire epidermis from the underlying corium; the epidermis shows no degenerative changes and acantholysis is absent (Fig. 2). Some observers have applied the name pemphigoid to this condition as they do not regard these changes as characteristic of true pemphigus.

Clinical Features

Pemphigus vulgaris

Pemphigus vulgaris commonly affects those in middle age.

Skin Lesions

The skin lesions are fairly typical, the epidermis tending to slide off in large sheets (with or without the formation of bullae), leaving painful denuded areas which tend to enlarge rather than heal. Lesions are frequently present around the lips and nose.

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Mucous Membrane Pemphigus

Mucosal Lesions

The mucous membranes of the *mouth* are almost invariably involved. Intact bullae are seldom seen but large superficial painful erosions develop as the epithelium is shed. Increased salivation is a feature and swallowing may be so painful due to pharyngeal involvement, that saliva, often blood stained, dribbles from the mouth.

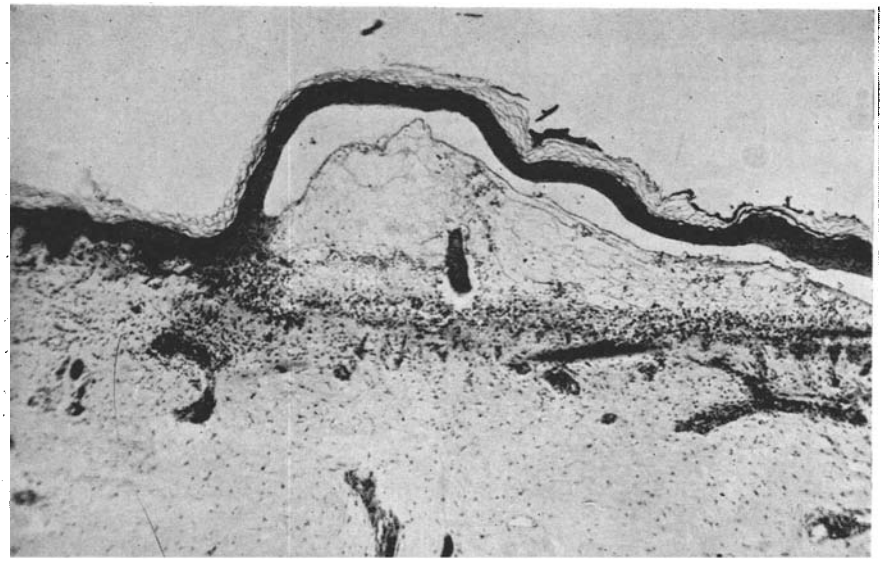


FIG. 2.
Sub-epidermal bulla (found in ocular pemphigus) with detachment of entire epidermis from underlying corium.

Hoarseness may result from involvement of the *larynx*. The *nose* may also be affected and nasal discharge may be tinged with blood. The erosions show little or no tendency to healing. Lesions are also found on other mucous membranes such as the *conjunctiva*, *vulva* and *anal* mucosa.

After the stage of generalized eruption the patient's condition tends to deteriorate fairly rapidly and, until recent years, the disease was invariably fatal. The introduction of the corticosteroid drugs has proved life saving and the prognosis has been greatly improved, but prolonged and careful therapy is necessary.

Ocular Pemphigus

Ocular pemphigus usually affects older people over the age of 60.

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Mucosal Lesions

Although mouth ulcers are at least as common as conjunctival lesions, the disease is seldom diagnosed until it attacks the conjunctiva —hence the name ocular pemphigus. Bullae lead to sub-epidermal scarring which is a marked feature of the disease. The lesions are, as a rule, painless and give little trouble until the effects of scarring are evident. The *eye lesions* start with a simple catarrhal conjunctivitis associated with mucoid discharge and sometimes a burning or itching sensation. Bullae are seldom seen but sub-conjunctival scarring takes place, leading to shrinkage of the conjunctiva. Adhesions form between the palpebral and bulbar conjunctiva eventually obliterating the fornices and fixing the lids to the globe. The upper and lower lids may become adherent with narrowing of the palpebral fissure. Entropion and xerosis follow and lead to corneal ulceration and blindness. The *mouth lesions* tend to be painless. Sometimes bullae are seen but more frequently indolent denuded areas which heal slowly eventually giving rise to white scars. The scars may result in adhesions; sometimes these form between the buccal mucosa and alveolus obliterating the buccal sulcus; sometimes they involve the soft palate, pillars of fauces and uvula. Hoarseness may result from bands of adhesions in the *larynx*. Fibrous stricture of the *œsophagus* may occur as a rare complication; nine such cases were traced by Lever (1953). If the *nose* is involved, chronic inflammation and erosions may eventually result in fibrous adhesions and in atrophic rhinitis. The *genital* region is frequently involved; bullae and erosions occur on the glans penis or vulva and vagina; these are followed by scarring, and vaginal atresia has been known to occur. The *anal* mucosa is less commonly affected.

Skin Lesions

The skin is involved in approximately 50 per cent. of cases. Usually the regions of the eyelids, face, head and neck are affected. Skin lesions may precede mucosal lesions by several years.

The disease is practically never fatal unless severe œsophageal stenosis is present.

Treatment is often ineffectual as the diagnosis is seldom made until scarring has taken place. Church and Sneddon (1953) found all forms of treatment of little value. Corticosteroid therapy does, however, have a good effect on active erosions, but has no effect on adhesions and strictures in long-standing cases.

Case Records

The following three cases illustrate the main features of both types of pemphigus.

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Case I. Mrs. S., aet. 52 (a case of acute pemphigus vulgaris), had eighteen dental extractions under local anæsthesia for painful and bleeding gums with halitosis. The gums healed but 3–4 weeks after the extractions the mouth and throat became increasingly painful and there was marked pain on swallowing. Gross ulceration was present on the lower lip, floor of mouth, both cheeks and the pillars of fauces. The ulcers showed a tendency to bleed. Two months later red papules appeared on the abdomen and back. These gradually enlarged and became vesicular. The vesicles ruptured leaving areas of weeping denuded epithelium. The process spread and large areas appeared on the trunk and limbs. Bullae were also seen in the mouth but they ruptured very rapidly giving rise to superficial erosions. Epistaxis and hoarseness indicated involvement of the nose and larynx. She was later referred to the Ear, Nose and Throat Department. On examination, I noted areas of denuded epithelium on the left side of nose, buccal mucosa, hard and soft palates, epiglottis and left vocal cord. Microscopic examination of a bulla showed changes typical of pemphigus vulgaris, with splitting of the deepest layers of the epidermis and acantholysis. The skin lesions cleared up after treatment with ACTH, but, as frequently happens, the mucosal lesions persisted. These lesions are now no longer painful.

Case II. Miss L.C., aet. 65, (a case of ocular pemphigus) reported because of itchiness of the right eye. She was kept under observation and the lower fornix gradually became obliterated. The diagnosis of ocular pemphigus was made and other mucous membranes were examined in detail. She was found to have painless erosions on the left side of nasal septum, buccal epithelium, and palate. She also had an adhesion across the right vallecula and a healed ulcer on the aryepiglottic fold. She gave a history of genital erosions for 30 years and examination of the genital area showed superficial ulcers and bullae on the vulva. Repeated examinations of the mouth and throat revealed bullae on the buccal epithelium and palate on several occasions.

Treatment by cortisone has helped to keep the eye condition under control.

Case III. A.McK. Male, aet. 69 (a case of ocular pemphigus), first reported to the Eye Department and was treated for "chronic conjunctivitis". When, five years later, he developed obliteration of the fornices in the left eye, the diagnosis was altered to "essential shrinkage of conjunctiva caused by ocular pemphigus". Progressive contracture caused entropion which led to damage to the cornea from the eyelashes. Three years later the lids became completely adherent to the eyeball and severe chronic ulceration with pain and blindness resulted; evisceration was carried out. In the meantime, a similar condition was developing in the right eye and progressive blindness followed.

About this time he was referred to the Ear, Nose and Throat Depart-

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ment and was found to have a left-sided atrophic rhinitis and an obscure chronic pharyngeal condition, with the appearance of a membrane on the posterior pharyngeal wall, epiglottis, valleculae, and false cords. The condition was diagnosed (after repeated examinations and biopsies) as a chronic non-specific pharyngitis, together with an atrophic rhinitis. At a later date, contractures of the aryepiglottic folds pulled the epi-

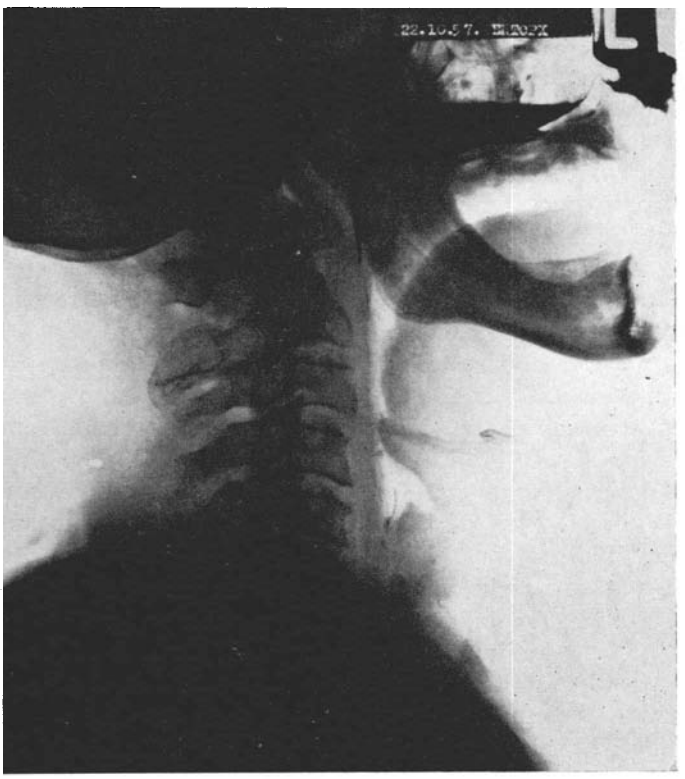


FIG. 3.
Radiograph with lipiodol showing gross narrowing of nasopharynx due to ocular pemphigus. (Case III.)

glottis backwards and downwards giving rise to stridor. Seven years later the man was sent back to the department because of severe dysphagia. He still had active superficial ulceration of the buccal and pharyngeal mucosa. The pharyngeal condition had, however, advanced greatly for the palate was now adherent to the posterior pharyngeal wall and the nasopharynx seemed entirely closed off. Radiological examination, however, using lipoidol, showed that a small communication did in fact exist (Fig. 3). A barium swallow showed that the dysphagia was due to a

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tight upper œsophageal stricture (Fig. 4); œsophagoscopy revealed active erosion of mucosa immediately above the stricture. It now became apparent that the nose and throat lesions were local manifestations of ocular pemphigus. Further investigations revealed Paget's disease affecting skull and long bones.



FIG. 4.

Barium swallow outlining severe upper œsophageal stricture caused by ocular pemphigus. (Case III.)

Treatment by cortisone and ACTH brought improvement in the throat lesions, but, at the end of the treatment, the patient developed broncho-pneumonia and died.

Post-mortem examination revealed, in addition to the pharyngeal erosions, an almost complete obliteration of the nasopharynx. The

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œsophageal stricture had been successfully dilated by the passage of bougies. Two large peptic ulcers were present in the stomach.

Conclusion

Two varieties of pemphigus are likely to affect the mucous membranes of the mouth and throat. These are:

1. Acute pemphigus vulgaris—a serious disease which carried a mortality of 90 per cent. before the introduction of corticosteroid therapy. This disease affects the middle-aged and is associated with painful mouth erosions which show little tendency to healing or fibrosis; bullae are seldom seen.

2. Ocular pemphigus—a chronic disease generally found in older people, seldom if ever fatal, but causing progressive blindness from shrinkage of conjunctiva. Other mucous membranes are invariably affected and bullae may be seen in the mouth and throat. These rupture and give rise to painless erosions which heal slowly with the formation of dense scar tissue leading to fibrous contractures many years afterwards.

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