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Granular myringitis

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GRANULAR myringitis (G.M.) is a disease of the tympanic membrane that is poorly understood. It receives little attention in the world literature and its etiology remains obscure. It is frequently confused clinically with chronic suppuration of the middle-ear cleft, with serious consequences regarding its management.

Factors responsible for the pathogenesis and maintenance of G.M. are unknown. It is not related to suppurative otitis media, or to allied conditions such as cholesteatoma, tympanosclerosis or Eustachian tube malfunction; and though it may involve the deeper part of the external auditory canal skin it is not a part of or a sequele to external otitis in any of its forms whether bacterial, fungal, viral or reactive. The disease is not related to systemic disorders, such as diabetes or allergy. Both sexes are equally affected and most patients are healthy young adults or middle-aged individuals. One ear is usually affected but bilateral cases are not uncommon.

The condition runs a chronic course in which the inflammation is confined to the squamous layer of the drum (Politzer, 1894; Moffet, 1943; Senturia, 1957). This layer becomes replaced by proliferating granulation tissue, beginning as a localized patch which, if neglected, will creep to involve the entire tympanic membrane surface and may even extend laterally to involve the adjacent deep part of external canal skin. The mass of granulation builds up over the drum over a period of years, and occasionally squamous epithelium will grow over the surface of the granulation to give the appearance of a stenotic ear canal.

Chronic persistent offensive drainage and moisture is the commonest complaint and the condition might be mis-diagnosed as chronic suppurative otitis media (C.S.O.M.), sometimes with faulty advice that a mastoidectomy should be performed.

Careful examination will reveal reddish granulation tissue anterior or posterior to the handle of the malleus, or covering the whole region of the drum. There is scanty offensive discharge which smells like that of a cholesteatoma. The discharge is frequently sticky and mucopurulent in nature. This adds to the confusion in diagnosis since external canal suppurations are supposed not to be mucoid, as the canal lacks mucus-secreting cells, and consequently the mucopurulent discharge of G.M. is erroneously attributed to C.S.O.M.

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Granular Myringitis usually shows a growth of gram-negative bacilli in culture sensitivity tests, most commonly Pseudomonas aeruginosa, which is a well-known agent in C.S.O.M. and is only rarely implicated in external ear infections, except in the so-called malignant external otitis. This should be borne in mind and should not lead to mis-diagnosis.

Bassiouny (1981) demonstrated the presence of mucoid discharge in cases of perichondritis of the auricle and assumed its origin to be related to Pseudomonas infections, a suggestion which if substantiated would explain the presence of a similar mucoid discharge in G.M.

The management of G.M. is disputed and to date there is no single effective measure that can be applied successfully in every case.

Systemic and local antimicrobial agents, even when selected according to culture sensitivity tests, are rarely helpful. Antiseptic alcoholic ear drops and local steroids are occasionally gratifying when used over a long period, particularly when accompanied by repeated ear cleansing.

Cauterization of the granulation tissue, using caustics such as chromic acid, trichloro-acetic acid or silver nitrate, are promising but may lead to tympanic membrane perforations.

The practice of the present authors is to advise repeated aural toilet and twice-daily instillation of antiseptic alcoholic ear drops for one week, followed by steroid and garamycin drops for another week or two. This was successful in 5 out of 12 cases.

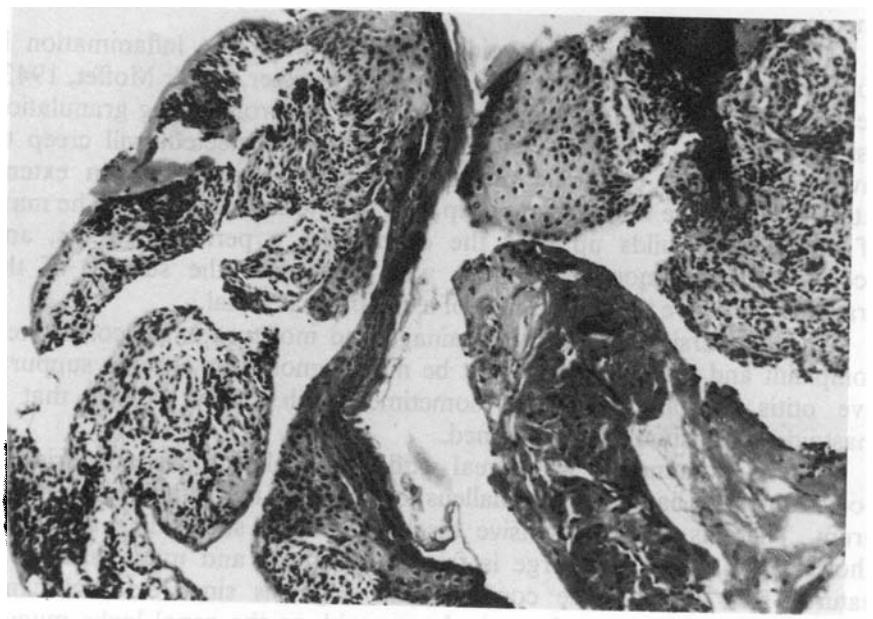


FIG. 1

Photomicroscopy of granulation tissue in a case of granular myringitis.

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Local cauterization with 50 per cent solution of chromic acid was tried in 3 cases, with 2 cures and one tympanic membrane perforation.

Four cases were given general anaesthesia and under magnification the granulation tissue were carefully scraped and removed lateral to the fibrous tissue layer of the drum. If this granulation tissue extended to the deep part of the meatal skin, this was removed too. The denuded drum surface was left bare and no graft material was applied. Post-operative corticosteroid drops were advised twice daily for two weeks. One case had an accidental drum perforation which was grafted during operation using temporalis fascia. Healing occured in 3 weeks in all cases.

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