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Functional endoscopic surgery to the sinuses

A minimally invasive treatment for sinusitis

Endoscopy is now being used for both diagnosis and surgical treatment of disorders of the nose and paranasal sinuses. Endoscopic examination has improved our understanding of the pathological basis of chronic and recurrent sinusitis.

Direct observations of mucociliary clearance patterns have shown that there are clear cut pathways in the sinuses, with secretions always trying to leave through the natural ostia.¹ The maxillary and frontal sinuses both drain into the nose through narrow channels in the ethmoids, an area subject to frequent anatomical variations and known as the "ostiomeatal complex."² In health these narrow clefts convey mucus into the nose with no difficulties. But if the mucosa become inflamed the pathways in the ethmoids will become obstructed and impede normal sinonasal drainage, possibly acting as a focus for recurrent or persistent inflammation, producing the clinical picture of "maxillary" or "frontal" sinusitis.³ This condition can now be treated by endoscopic functional surgery, which relies on the ability of diseased sinus mucosa to recover when the source of inflammation has been removed. Clinical reports suggest that this potential reversibility may have been underestimated.^{4,6}

The concept that the ethmoid sinuses might influence inflammatory disease in adjacent sinuses is not new,⁷ but our ability to visualise directly areas of mucosa and accurately image the deeper recesses of the sinuses has allowed direct confirmation of the association.⁸ This evidence gave a logical basis for a direct surgical approach to the ethmoids as an alternative to and possibly a replacement for the traditional radical procedures such as the Caldwell-Luc operation—at least until disease in the ostiomeatal complex area has been assessed and treated.^{9,10}

Outpatient diagnosis in adults and children is made using 4 mm and 2.7 mm telescopes in the nose.^{11,12} Surgery is performed under either local or general anaesthesia and differs from other types of ethmoidectomy in that the procedure is carried out entirely under direct vision and an external incision is avoided. The technique is demanding and requires a detailed knowledge of ethmoid anatomy. Careful endoscopic follow up is required, but there is less of a need for x ray examinations as the sinuses can be inspected directly if symptoms of disease recur.

Endoscopic sinus surgery remains a limited specialised procedure in Britain. The lack of disease classification and long term follow up has meant that there have been no controlled studies, but clinical reports of several thousand procedures from Europe and the United States show results when performed by an experienced endonasal surgeon similar to the older approaches.¹³ The main benefits of the technique comes from the accurate diagnosis of early disease, particularly when there is a localised cause for widespread sinus inflammatory changes. In these circumstances endoscopic surgery can be effective without the morbidity associated with traditional approaches.

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Adult consequences of early parental loss

Quality of care matters more than the loss itself

Many studies show an increased risk of adult affective disorder after loss in early childhood. The studies support theories that link depression with the quality of the child's psychological response to the death or other loss of a person who is important to them.^{1,2} But the degree of risk varies from study to study, and much effort has been made to explain these variations and to decide whether it is the loss itself that constitutes the risk. It may not be.

The childhood experiences that precede depression or anxiety in adulthood³ have been identified mainly for women,⁴ but associations have also been found for men.^{5,6} Loss results not only from the death of a parent⁷ but also from separation caused, for example, by marital breakdown, hospitalisation, and wartime evacuation.⁶ The term "early" has been used in the studies to cover the whole of childhood up to the age of 17. Studies have nearly always been retrospective, with possibly inaccurate data about early separations and the domestic circumstances at the time being recalled by the subjects. Adult subjects have been drawn from a wide age range (18 to over 50) of people from outpatient clinics and the general population and have shown varying degrees of

psychopathology over periods ranging from one month to the whole adult lifetime.

It now seems reasonable to conclude that loss does not directly increase risks for adult disorder because the association between adult psychopathology and inadequate care in childhood persists with or without loss.⁸⁻¹¹ Can we then forget early loss as an antecedent of adult psychopathology and try to identify true risk factors such as those found for coronary heart disease?

One approach is to find a risk factor that is common to both the childhood loss and the adult disorder—for example, a trait that predisposes the parent to disease or discord and is inherited by the child. This approach is, however, too limited: most of these factors depend on the social context and the stage of development of the person experiencing them. Rather than studying isolated factors it is better to study processes—the ways in which personal endowments and developmental experiences lead to psychopathology. These processes include a series of steps, each with unpredictable results.¹²⁻¹³ Thus loss of a parent through divorce may lead to either improved parenting or lack of parental care. Early loss may lead to adult psychopathology through lack of parental care, premarital pregnancy, and lack of marital support (among other factors),¹⁴ but the intervening steps are not fixed.

Prospective studies of children at risk should be used to see whether continued adversity maintains vulnerability and whether improved circumstances reduce it. Personality before and after loss should also be considered.¹⁵ Finally, whatever the processes are that link the lack of parental care with adult psychosocial problems they are not specific to

affective disorder—they apply at least as strongly to antisocial behaviour and to difficulties in work and relationships.¹⁶⁻¹⁷ Future studies should therefore look at these problems as well as at affective disorder.

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Regular Review

Difficult asthma

Cause for concern

Asthma affects over 5% of the population in industrialised countries, and it is perhaps the only common treatable condition that is increasing in prevalence and severity and with a rising mortality despite increases in drug prescriptions. The diagnosis and treatment of asthma are relatively straightforward, and yet asthma is still underdiagnosed and undertreated both in general practice and in hospitals,¹⁻³ and avoidable deaths due to asthma still occur, even in hospitals.⁴

Conventional treatment

Recent advances in understanding the pathogenesis of asthma may have an important impact on approaches to treatment. In asthma a chronic inflammation of the airways is characterised by infiltration of eosinophils and lymphocytes and shedding of the airway epithelium. The various abnormalities and the complex, often conflicting, theories of asthma may now be understood in terms of this special inflammatory state of the airway mucosa, and asthma might be more usefully renamed "chronic eosinophilic bronchitis."⁵ This would then emphasise the importance of treatments that suppress this inflammatory response as a first line approach to asthma.⁶

Conventional treatment for asthma consists of bronchodilators, which work mainly by reversing the contraction of smooth muscle in the airways, and anti-inflammatory (sometimes confusingly called prophylactic) drugs, which suppress the allergic inflammatory response. Of the bronchodilator drugs inhaled, β_2 agonists are by far the most effective, but theophylline and anticholinergic drugs may prove useful as additional bronchodilators in some patients. Inhaled corticosteroids have been an important advance in the management of asthma and are effective in most asthmatic patients. In adults inhaled steroids may become the first line treatment for chronic asthma, whereas in children sodium cromoglycate is the preferred initial treatment. A combination of regular inhaled steroids in adequate doses with an inhaled β_2 agonist for relief of intermittent symptoms will provide satisfactory control in most patients. Yet despite this simple approach based on effective drugs asthma remains a big problem in general practice and in hospitals. There are several reasons why asthma may be difficult to control, but many of these can be identified and appropriate measures taken. Poor control of asthma is also related to lower social class, and social factors such as poor housing may be important in determining the use of treatment.⁷ In this article we discuss some of the