Asthma and co-existent disease

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The establishment of chronic disease clinics in primary care has contributed to improved quality of care for a large proportion of our patients.[1-4] Whilst these clinics are very useful in allowing in-depth assessment of a particular condition, it must always be remembered that one of the unique features of primary care is that it is a patient-centred discipline. When reviewing those with chronic disease it is therefore important that one retains the ability to think laterally and consider the many factors that may be affecting the quality of life of our patients.

An important consideration is the detection and treatment of co-existent disease. Many such conditions are responsible for considerable morbidity, and in some cases increased mortality. It is clearly important, therefore, that these conditions are treated in their own right. Furthermore, there is increasing evidence to suggest that if inadequately treated, many of these allied conditions, can have a direct bearing on the degree of asthma control achieved.

Although the traditional classification of asthma into extrinsic and intrinsic asthma is far from ideal, it is a useful framework within which to consider the subject of co-existent disease.

The atopic patient

The majority of those with extrinsic asthma have atopy as an underlying disease process. If allergy is considered to represent the clinical expression of atopic disease, it is to be expected that this group of patients will have a high prevalence of associated allergic conditions.

One of the most commonly encountered associations is the presence of chronic disease of the upper respiratory tract; this group includes rhinitis and sinusitis. It has been estimated that up to 80% of asthmatics have allergic rhinitis and between 25-50% of patients with rhinitis have associated asthma.[5-7] Allergic rhinitis is either seasonal (hayfever) or perennial. Perennial rhinitis with seasonal exacerbations may also occur.

Although frequently trivialised by patients and doctors, allergic rhinitis is an important cause of morbidity, and can impair performance both at school and in the workplace. Clearly then, the identification of one condition should lead to a thorough search for the other. Indeed, such is the close relationship between asthma and rhinitis that treatment of rhinitis often leads to an improvement in asthma control.[8,9] Similarly, failure to respond to asthma therapy may be due to undiagnosed or inadequately controlled rhinitis.[10] Of note is the intriguing, but highly probable, suggestion that inadequate or delayed treatment of rhinitis may lead to the development of asthma.[10] The fact that rhinitis frequently precedes the onset of asthma adds weight to this hypothesis.[11]

With regard to sinusitis, a relationship with asthma has been recognised for many years. The incidence of sinusitis in asthmatics has been cited as being anywhere between 12-90%.[12-14] Whether sinusitis alone can induce asthma has been debated since the early 20th Century, with no immediate resolution to this controversy in sight. However, what is clear is that untreated or inadequately treated sinus disease can make asthma difficult to control.[15-19]

Other commonly encountered allergic conditions worth considering in the atopic patient include diseases of the skin and eyes. The principal allergic skin disorders are eczema, dermatitis and urticaria, whilst those affecting the eye include the whole spectrum of conditions comprising allergic conjunctival disorders.[20] There is a wide array of other allergic disorders that may be encountered, but these are, on the whole, rarer in occurrence.[21] Whilst in themselves these conditions are unlikely to have a direct impact on asthma control, they can be responsible for considerable patient suffering, which in many cases is eminently treatable.

Allergen avoidance measures should be considered in the atopic patient. Although logical, until recently the evidence supporting such measures was lacking. Recent studies have shown that allergen avoidance, in appropriately selected individuals, can be of benefit.[22-4] Further studies are underway, both nationally and internationally, which should further clarify their precise role. At present, where such an intervention is being contemplated, it is essential that a detailed allergy history is taken and supportive objective evidence is obtained using a skin prick test.[25] These are cheap, safe, and easy to administer, as has been recently confirmed in a study performed in primary care.[26]

Intrinsic asthma

In those with intrinsic asthma Samter's syndrome is an important consideration. This is the classically described triad of nasal polyps, aspirin sensitivity, and late onset asthma.[27,28] In more general terms, this triad consists of upper respiratory tract inflammation manifest as vasomotor rhinitis, sinusitis, nasal or sinus polyps, lower respiratory tract inflammation manifest as asthma, and intolerance of aspirin and related compounds. In such patients sensitivity to non-steroidal anti-inflammatory drugs (NSAIDs) is often extreme, and therefore should be avoided. Where no real alternative to NSAID therapy exists, referral should be made to an allergologist to assess suitability for desensitisation therapy.[16] This is once again beginning to gain popularity in the UK, although the numbers currently being treated are still far lower than in Europe and the USA.

Conditions spanning the extrinsic/ intrinsic divide

Psychological and psychiatric disease is generally found to be more common in those with chronic

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disease.[29,30] This is also true for those with asthma as has been well documented in the literature.[30-32] Such a relationship is important for a number of reasons. Firstly, it is well recognised that stress is a potential trigger factor for acute exacerbations of asthma. Secondly, compliance problems with management plans are more likely to be encountered.[33,34] Thirdly, and most importantly, it should be remembered that psychiatric disorders are known to be associated with an excess mortality from all causes.[35] In particular, increased risk of asthma death is observed when asthmatic patients are prescribed major tranquillisers or sedatives.[36] Therefore, implications for the care of such patients include considering undetected mental illness when reviewing patients, especially when there are concerns regarding the possibility of non-compliance. For those in whom such co-morbidity is detected, there is a need for careful and regular follow-up and the judicious prescribing of anti-psychotics. In cases of particular concern the assistance of community psychiatric services should be enlisted.

Gastro-oesophogeal reflux is noted to be three times more common in asthmatics than in the general population, and appropriate medical management is sometimes associated with the improvement of asthma. It should also be remembered that some anti-asthma medication, such as theophylline and $ß_2$-agonists, may cause gastro-oesophogeal reflux.[37]

Conclusion

The care of asthmatic patients has improved considerably over recent years. This is largely due to the structured, pro-active care being provided by multi-disciplinary primary health care teams.[38] One of the many avenues that will lead to further improvements in quality of care is the detection and management of co-existent disease. Primary care, with its holistic understanding of the multi-faceted health care needs of individuals, is ideally placed to rise to this challenge.■

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