

CORRESPONDENCE

HH Salter (1860s): taking cold as original cause and provocative of attacks of asthma

Henry Hyde Salter's pioneering contributions and unsurpassed descriptions regarding many facets of asthma and its treatments¹ are increasingly recognised during the last 50 years.^{2–3} Indeed, reference to Salter is frequent in current discussions on asthma. However, Salter's intriguing observations inferring roles of respiratory infection in asthma remain little noticed. Yet, common cold, predominantly rhinovirus infections, is now acknowledged as leading cause of exacerbations of asthma. Respiratory viral infection is also major contender as original inciter of asthma (reviewed in ref. ⁴).

A centennial before discovery of cold virus⁵ Salter distinguished immediate worsening of asthma by cold air from sustained exacerbations evoked by taking cold: '... it entirely depends on whether it gives rise to "a cold;" if not, the greatest depression of temperature may be endured without the slightest injury'. Separating cold wind, frosty morning etc from taking cold he presented some 50 cases where the latter was a major 'provocative of attacks' of asthma.¹ Since childhood, Salter suffered himself from severe asthma; he described his own exacerbations: '... the most prominent and frequent of all exciting causes is what is commonly called *taking cold* ... The asthma consequent on cold on the chest (bronchitis) is of a most painful and distressing kind; unlike that produced by cold directly, it often lasts for days'. Salter realised that common cold evoked bronchial inflammation and hyper-responsiveness in asthmatics: 'I myself have no doubt that in ordinary acute bronchitis a good deal of the dyspnoea ... is due not only to the mucous membrane being tumid from inflammation and so narrowing the calibre of the tubes, but to active contraction from the irritation and exalted sensibility that the inflammation gives rise to'.¹

Salter further reported numerous cases where 'taking cold' was considered 'original cause' of asthma.¹ He analysed these observations: 'catarrhal bronchitis ..., in a large number of cases, has been infantile bronchitis, or that of early childhood, in many

ways slight, and seemed to be nothing more than a common cold on the chest, and in almost all was so completely recovered from that the cases afterward presented the characters of pure spasmodic asthma, and not that of bronchitic asthma' 'this frequent association of asthma with an antecedent event implying organic, although apparently temporary, injury of the lung, must have a very important influence on our notions of the aetiology of the disease'.

Salter's lasting authority in asthmology reflects his astute, independent reading of nature, often necessitating iconoclastic conclusions. Antedating virology, Salter also produced prophetic notions about the enigmatic, virus-induced asthma. This remains a major respiratory research field replete with medical needs.

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