

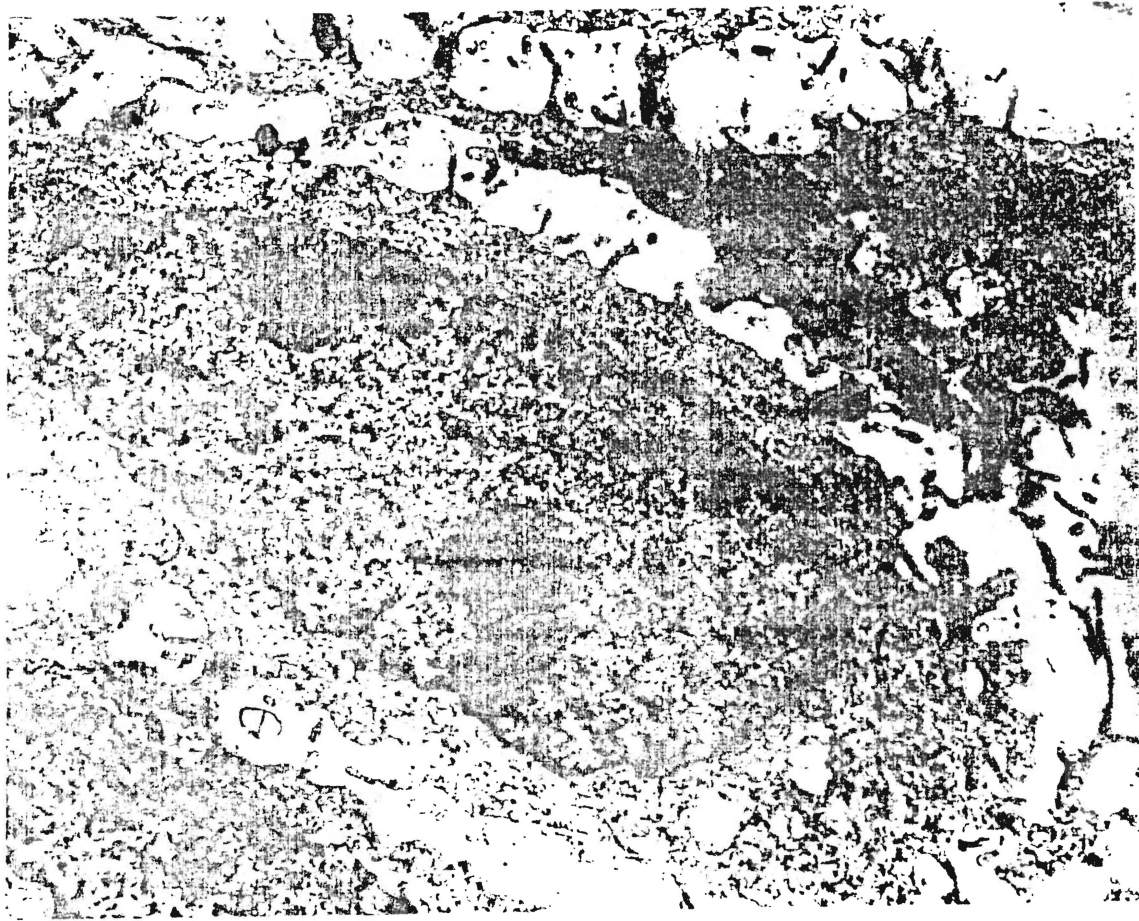
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POLLEN GRAINS IN RESPIRATORY CYTOLOGY: ENTITY AND SIGNIFICANCE

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Pollen grains in respiratory cytology are usually overlooked or misinterpreted as cellular elements whereas their presence is relatively frequent. Among 882 sputum and tracheobronchial aspirations samples collected in the time span of one year (1982), 122 (15%) have been found to contain pollens. In 99 of them we found 1-15 grains per slide, in 23 between 16 and 116 grains per slide. Most of these specimens pertain to the period between April and September. Palinological analysis has shown that most grains belong to Graminaceae, Urticaceae and Plantago (allergogenic entities), and were found to be either whole or reduced to only the sporoderm or protoplasm. Based on parallel analysis carried out in order to evaluate the possibility and amount of pollen contamination in the laboratory, it appears likely that part of the pollen effectively comes from the respiratory tract. There is a meaningful correlation between number of pollens and respiratory pathology especially in individuals with chronic inflammatory processes and/or squamous metaplasia if compared with control subjects (with no respiratory pathology). The authors believe that the presence of pollen grains in respiratory cytology is frequent and not only caused by contamination and that a high pollen count can be correlated with a lowered efficiency of the respiratory ciliated epithelium. The identification of pollen grains completes the cytologic diagnosis, prevents possible diagnostic mistakes and helps towards a more careful allergologic evaluation of the subject under study.