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LETTER TO THE EDITOR

Fibroblasts in chronic submandibular sialadenitis

Dear Sir,

We read the article 'Immunohistochemical study of fibroblasts and mast cells in chronic submandibular sialadenitis' by Epivatianos *et al* (2008) with great interest. In recent years stromal CD34 expression and $CD34^+$ fibrocytes, which were first described in 1994 (Bucala *et al*, 1994), have attracted increasing interest. $CD34^+$ stromal cells are abundant in most organs which have been investigated in this topic (Barth and Westhoff, 2007). The distribution of $CD34^+$ stromal cells in the submandibular gland reported by the authors is in keeping with previously published studies (Yamazaki and Eyden, 1996; Soma *et al*, 2001). In chronic submandibular sialadenitis the authors observed a complete loss of stromal CD34 expression. This is an interesting finding as a loss of $CD34^+$ fibrocytes, i.e. of stromal CD34 expression was primarily observed in the stroma of invasive carcinomas where it was paralleled by a gain of α-SMA expression (Barth and Westhoff, 2007). Thus, for at least two reasons the study by Epivatianos *et al* is of outstanding interest. First, the authors show that a loss of stromal CD34 expression is not an exclusive feature of invasive carcinomas but may also occur in chronic inflammation. Accordingly, as has already been stated by us, the disappearance of $CD34^+$ fibrocytes, when used as a single diagnostic criterion, does not justify the diagnosis of malignancy (Ramaswamy *et al*, 2003). Second and what appears to be of even greater importance, the authors show that the disappearance of stromal CD34 expression is not always linked to a gain of α-SMA expression which is mostly found in the stroma of invasive carcinomas.

The authors also report an increased number of mast cells in chronic sialadenitis. This appears somewhat unspecific as it has also been observed in the stroma of squamous cell carcinomas of the upper aero-digestive tract (Barth *et al*, 2004). Undoubtedly, mast cells play a pivotal role in stromal remodeling irrespective of the cause. However, the factors modulating this process are far from being understood and require further scrutiny.

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