

Should we perform cytokeratin immunostaining in cases of Russell body gastritis?



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To the Editor

We read with interest the article "Analysis of clinical and histopathological findings in Russell body gastritis and duodenitis" by Altindag and colleagues [1].

In large series of cases, the authors concluded, that Russell body gastritis (RBG) must be kept in mind while reporting endoscopic biopsies because this entity may be associated with neoplasms and

misdiagnosed as signet ring cell gastric carcinoma. For the differential diagnostic purposes in these cases the use of mucin stains and cytokeratins is needed. On the other hand, the authors reported that Russell bodies (RBs) were Periodic acid Schiff-Alcian blue pH 2.5 (PAS-AB) positive in all investigated cases in their study [1]. The authors emphasize that PAS-AB-staining procedure is very useful for the recognition of RBs, but it is not helpful to differentiate RBG from signet ring cell carcinoma, because it also stains tumor signet ring cells [1]. Un-

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Fig. A. 3 plasma cells containing RBs (Mott cells) (thin arrows) in the lamina propria of gastric mucosa admixed with foamy-like cells showing slight nuclear atypism (thick arrows). *Hematoxylin-eosin-saffron*, x 400.

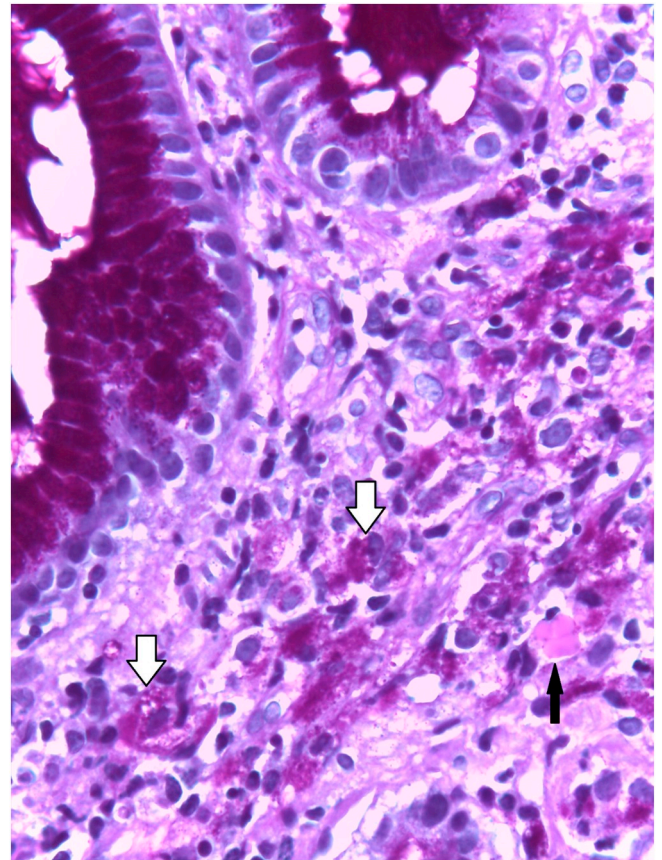


Fig. B. PAS positivity in both RBs (thin arrow) and foamy-like cells (thick arrows). *PAS*, x 400.

fortunately, in the cited article we could not find images concerning the discussed differential diagnostic problem [1].

We recently observed a case of endoscopic stomach biopsy, in which, in routine staining, in an inflammatory context of lamina propria, we found few RBs-containing plasma cells (Mott cells) admixed with cells showing an abundant foamy cytoplasm and slight nuclear

atypism (Fig. A). The RBs were positive with PAS and PAS-AB stains, as the surrounding cells with morphology of foamy macrophages (Figs. B and C). Only after performing immunohistochemical investigation with cytokeratin AE1/AE3 we proved the malignant epithelial nature of the observed cells (Fig. D). We set the diagnosis of signet ring cell carcinoma of the stomach in a combination with interstitial inflammatory infiltrate rich in RBs.

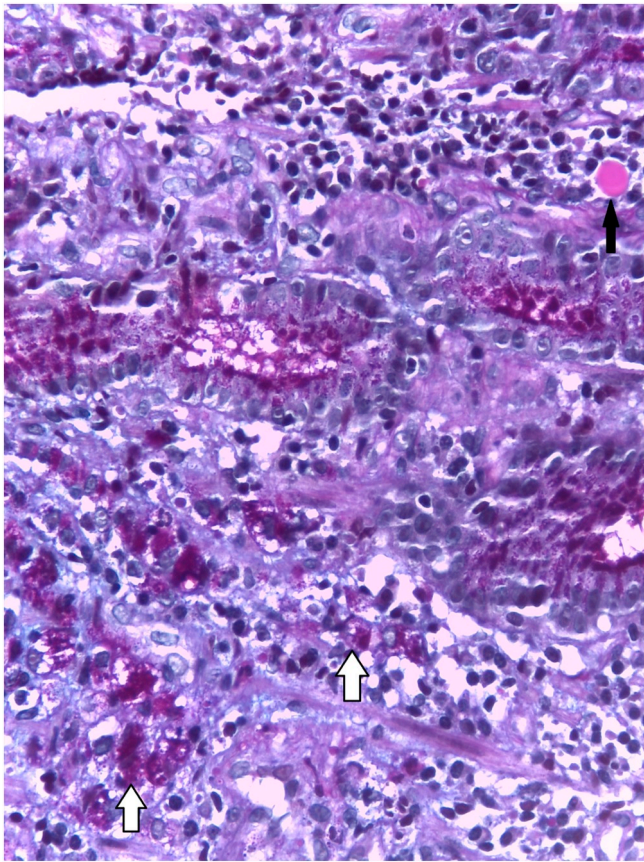


Fig. C. PAS-AB positivity in both RBs (thin arrow) and foamy-like cells (thick arrows). PAS-AB, x 400.

In the literature we found only one described case of signet ring cell carcinoma of the stomach in association with RBG [2].

Obviously, as Altindag et al concluded [1], the simultaneous performing of PAS or PAS-AB staining and cytokeratin immunostaining in such cases has significant role for setting the correct diagnosis.

Declaration of competing interest

The authors declare that there is no conflict of interest.

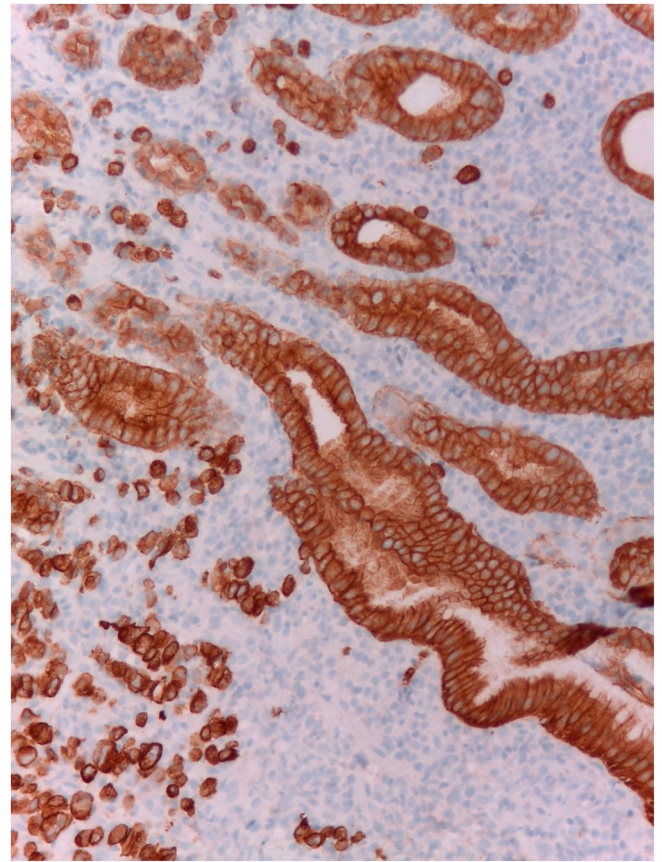


Fig. D. The foamy-like cells stained with pancytokeratin: a diagnosis of signet ring gastric carcinoma was set. Immunohistochemistry: Cytokeratin AE1/AE3, x 200.

References

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