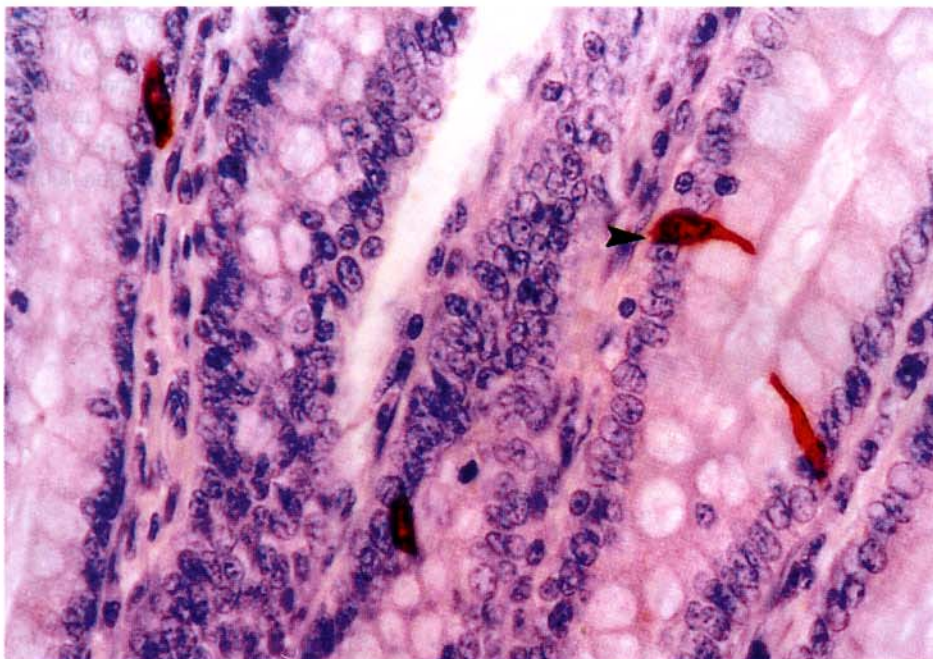


*Fig. 5.* Great number of irregularly shaped somatostatin-positive cells with sparse granules in the cytoplasm (arrows) of the surface epithelium of the experimental group. Immunohistochemical method, strept-ABComplex/AP, DAKO. Magnification 400x.



*Fig. 6.* Triangular somatostatin-positive cells with a distinct cytoplasmic protrusion, which extends to the cryptal lumen in the control group. Immunohistochemical method, strept-ABComplex/AP, DAKO. Magnification 400x.

area, which may result in malabsorption leading to diarrhoea as the main symptom (Ijiri 1989; Hendry et al., 1995; Francois et al., 1998; Nejdorfs et al., 2000). Combined radiotherapy and chemotherapy were associated with diminished volume density of PCNA-positive enterocytes, which is most probably due to DNA damage (Orazi et al., 1996; Muller et al., 1998; Potten and Grant, 1998).

In the animals treated with combined radiotherapy and chemotherapy, higher Vv of mast cells was seen on the first day after the therapy, which is consistent with the results of our previous study, where on the other hand the excision was performed 10 days after the irradiation (Vasalli, 1984; Zorc-Pleskovič et al. 2000). The

higher Vv of mast cells might be caused by factors released from lymphocytes T, which were reported to increase the number of mucosal mastocytes (Haig et al., 1982). In mast cell granules, there are several mediators that are released during the degranulation of mast cells after the combined therapy (Sedgwich and Ferguson, 1994). The mediators have several actions, such as SRS-A, which cause vasoconstriction leading to ischaemia (Norrby et al., 1980; Nicole et al., 1992).

In addition, higher Vv of somatostatin-positive and serotonin-positive cells was seen in treated animals compared to the control animals. Our findings are consistent with those of Lehy et al. (1998), who have recently reported increase in the somatostatin cell den-