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Immunostaining of progesterone and α estrogen receptors in the uterus of pseudopregnant bitches treated with Pyridoxine Hydrochloride

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INTRODUCTION

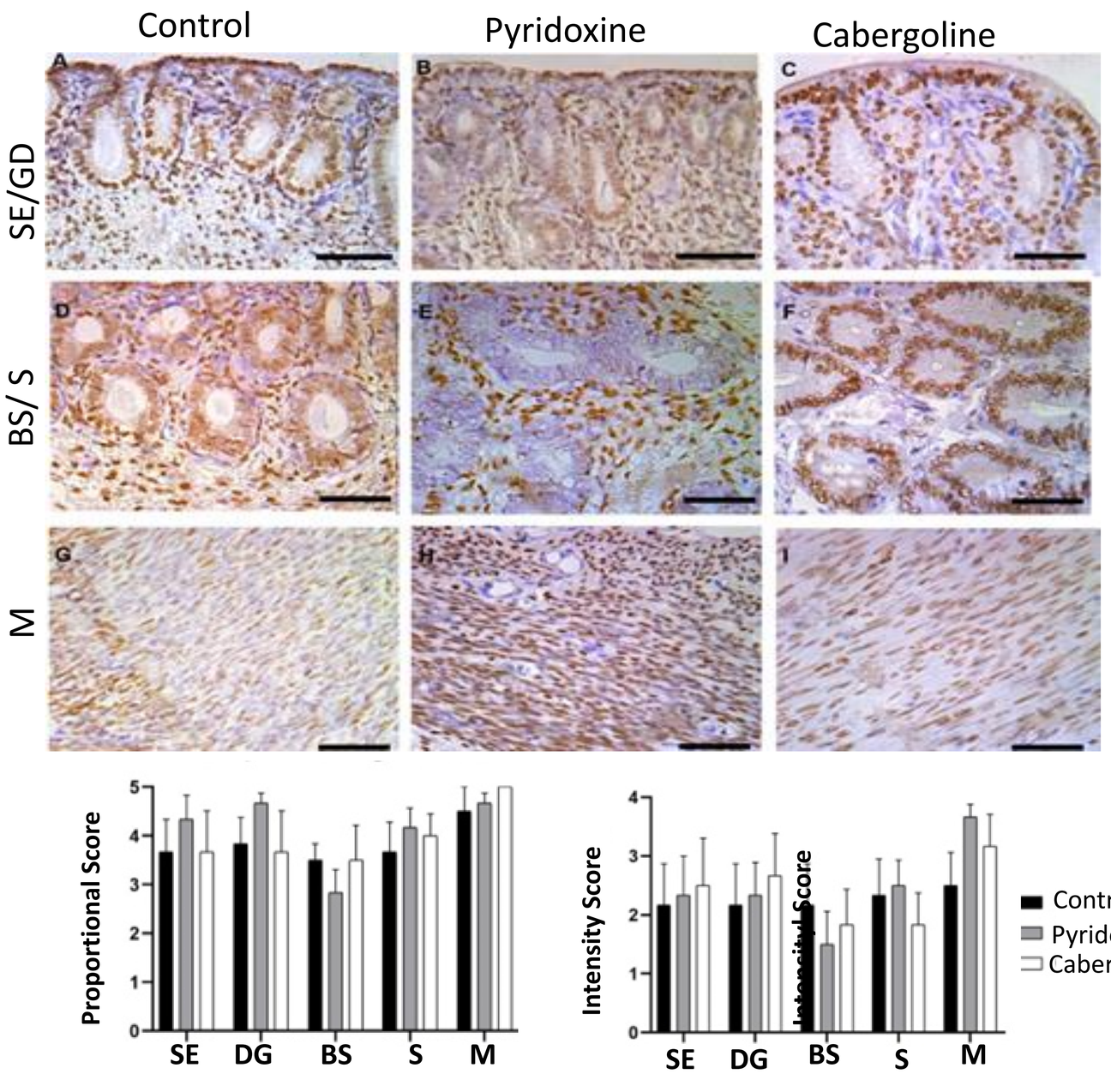
Pyridoxine hydrochloride (Vitamin B6) has been reported as a cheap, safe and efficient alternative for reducing serum prolactin concentration, controlling breast hyperplasia and milk secretion in pseudopregnant bitches. However, its uterine action remains to be elucidated. Therefore, the aim of our study was to evaluate the effect of B6 on the uterine immunostaining of progesterone (PR) and estrogen (ERα) receptors.

METHODOLOGY

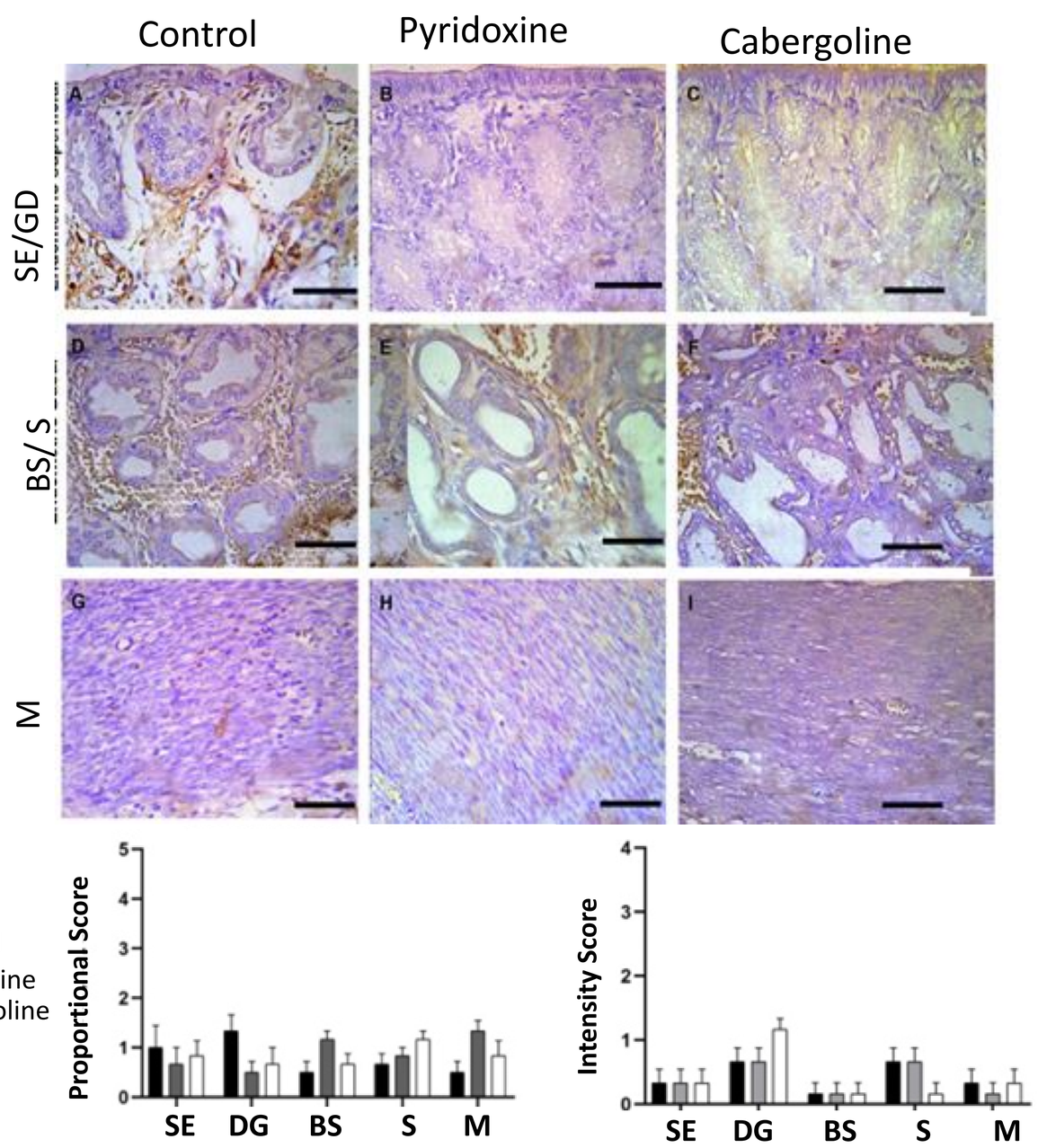
Histological sections were obtained for immunohistochemical evaluation using anti-PR (1:2000) and anti-Erα (1:50) antibodies from 18 pseudopregnant bitches, divided into three groups: 1) untreated control, 2) B6 (50 mg/kg/day; n=6) and 3) treated with cabergoline (5µg/kg/day; n =6) for 20 days. Five uterine regions (epithelial surface, glandular ducts, endometrial glands, stroma and myometrium) were evaluated in relation to the intensity score and proportion of immunostaining.

RESULTS

Progesterone receptor



Estrogen α receptor



SE= Surface epithelium; GD=Glandular ducts; BS= Basal glands; S= Stroma; M= Myometrium

CONCLUSION

The beneficial effects of vitamin B6 in the treatment of pseudopregnancy do not come from a direct modulation in the expression of hormone receptors for progesterone and estrogen in the uterus