

# Letter to editor: “Vaginal Er:YAG laser application in the menopausal ewe model: a randomised estrogen and sham-controlled trial “

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## **Letter to editor: “Vaginal Er:YAG laser application in the menopausal ewe model: a randomised estrogen and sham-controlled trial “**

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Running head: Two prospective for this promising experiment

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Dear Editor-in Chief:

We read with great interest with recent publication in BJOG by Mackova et al. (1) This study describe effects of non-ablative erbium-doped: yttrium-aluminium-garnet (Er:YAG) laser on vaginal atrophy induced by iatrogenic menopause in the ewe. The ewes were randomized to three groups: vaginal Er:YAG laser application, estrogen replacement, and sham groups.

In the estrogen replacement group of ewes, an estrogen implant was inserted under the skin in the inguinal region. The result showed increase in epithelia thickness in vaginal biopsies and it was significantly higher compared with the laser application and sham groups. In all groups, the lamina propria did not showed any significant differences. Also the autopsy showed the uterus of estrogen-exposed ewes weighted more.

We would like to humbly comment the vaginal estrogen use and laser application in genitourinary syndrome of menopause.

The vaginal estrogen application was given twice a week with the cream in currently practice of female who suffered from genitourinary syndrome of menopause (GSM). Firstly, the vaginal estrogen application was

given twice a week with the cream in clinical practice of female who suffered from GSM. The administration showed improvement of the symptoms while no significant change in serum estrogen level. (2) The estrogen implant in the ewe experiment continues to release estrogen and caused sustained estrogen effect in the ewe and caused gaining weight of uterus, which was very different with our clinical practice of intermittent vaginal cream use.

Second, the application in this study is Er:YAG laser, with the the lesser wave length: 2940 nm. While the CO<sub>2</sub> laser had much longer wave length 10600 nm and had deeper effect in not only vaginal epithelium but also lamina propia. (3) Therefore the vascularization effects of lamina propia may be obvious noticeably.

We thought these 2 flaws could be revised to make the ewe experiment more accurate and similar to current management in women with GSM.

## References

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