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Title:

Impact of hysterectomy or levonorgestrel-releasing intrauterine system on ovarian function, bone and sexual health in menorrhagic patients. Date of public examination 25th of May, 2007.

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Abstract in English:

The `VuoKKo` trial consisted of 236 women referred and randomised due to menorrhagia in the five university hospitals of Finland between November 1994 and November 1997. Of these women, 117 were randomised to hysterectomy and 119 to use levonorgestrel-releasing intrauterine system (LNG-IUS) to treat this complaint. Their follow-up visits took place six and twelve months after the treatment and five years after the randomisation. The first aim in the primary trial was quality-of-life and monetary aspects, and secondly in the present study to compare ovarian function, bone mineral density (BMD) and sexual functioning after these two treatment options.

Ovarian function seemed to decrease after hysterectomy, demonstrated by increased hot flashes and serum follicle-stimulating hormone concentrations twelve months after the operation. Such an increase was not seen among LNG-IUS users. The pulsatility index of intraovarian arteries measured by two-dimensional ultrasound decreased in the hysterectomy group, but not in the LNG-IUS group. The decrease in serum inhibin B concentrations was similar in both groups, while ovarian artery circulation remained unchanged.

BMD of the women measured by dual x-ray absorptiometry (DXA) at the lumbar spine and femoral neck at baseline and at five years after treatment showed BMD decrease at the lumbar spine among hysterectomised women, but not among LNG-IUS users. In both groups, BMD at the femoral neck had decreased. Differences between the groups were not, however, significant.

Sexual functioning assessed by McCoy's sexual scale showed that sexual satisfaction as well as intercourse frequency had increased and sexual problems decreased among hysterectomised women six months after treatment. Among LNG-IUS users, sexual satisfaction and sexual problems remained unchanged. Although, the two groups did not differ in terms of sexual satisfaction or sexual problems at one-year and five-year follow-ups, LNG-IUS users were less satisfied with their partners than hysterectomised women.