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# Estradiol plays a role in regulating the expression of lysyl oxidase family genes in urogenital tissues of mice and human endometrial adenocarcinoma cells

**Key words:** Lysyl oxidase family genes, TGF-beta signal pathway, Estradiol

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# *Research Summary*

**The objective of this study was to determine the effect of estradiol (E2) on the expression of the lysyl oxidase (LOX) family genes in the urogenital tissues of accelerated ovarian aging mice and human Ishikawa cells . A preliminary investigation of the role of the TGF-beta signal pathway in the relationship between E2 and the LOX family genes was included.**

# *Innovation points*

- **We found that E2 could increase the expression of LOX family genes and TGF-beta1 *in vitro* and *in vivo* by using the accelerated ovarian aging mice and human endometrial cancer cells (Ishikawa cells).**

- **The increased expression of LOX family genes by E2 may be through TGF-beta signal pathway.**

- **The findings suggest a potential approach for medical treatment or prevention of pelvic organ prolapse (POP).**

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Figure 4