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Significance of Estrogenic Factor in Tumors and Tissues of the Human Female.

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Considerable attention has been focussed on the presence and possible significance of the estrogenic factor in certain ovarian and other tumors,¹ in adenomata of the breast,² and in fibroids of the uterus.³

In previous publications we have emphasized the presence of the estrogenic factor in the follicle fluid, in certain cysts of the ovary, in malignant tumors of children in which premature puberty had occurred.

In none of these reports have control tissues been examined except the liver. We have now assayed the psoas muscle of 4 normal cyclical females and have there found the presence of large amounts of estrogenic factor varying in the different cases from 800 to 8000 M.U. kg. when calculated to a dry weight as Lewis and Geschickter have done. In one case, where the material was obtained at autopsy shortly after death from embolism, the psoas muscle titrated 2000 M.U. kg., the *normal* uterus, 8000 M.U. kg. (intermenstrual).

Therefore it appears unwarranted to base general conclusions on the mere presence of the estrogenic factor in abnormal tissues unless further study of other normal tissues shows that the estrogenic factor is not widely distributed throughout the body of the human female. Our observation, if found to apply only to the muscles, may also indicate that the estrogenic factor accumulates in these depots in a fashion similar to the deposition of certain other products (glycogen) to be liberated and utilized when required by the organism.

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¹ Frank, R. T., *PROC. SOC. EXP. BIOL. AND MED.*, 1934, **31**, 1204.

² Lewis, D., and Geschickter, C. F., *J. A. M. A.*, 1934, **103**, 1212.

³ Lewis, D., and Geschickter, C. F., *J. A. M. A.*, 1935, **104**, 45.