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Occurrence of Deciduomata in Rats Low in Vitamins A and E.

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In one rat of a series maintained on A low diets, multiple deciduomata occurred spontaneously. There were 12 macroscopic tumors in the right horn and 11 in the left, while the right ovary sectioned shows 5 large corpora and the left ovary 7. Sections show microscopic tumors between the larger ones. This rat was never mated. At 5 months of age it was transferred from a diet low in A to one free from A (extracted gluten and casein—cornstarch—lard—salts —yeast). This diet is also low in E. Cornification of the vaginal cell content became complete at once (Evans and Bishop,[1] Wolbach and Howe[2]), and persisted for 15 days when 2 drops of cod liver oil were given daily, producing a normal vaginal cell content, although no oestrus occurred after the cure. Fourteen days later vaginal blood was noted and autopsy performed.

In another series of E free rats, we have noted persistence of the decidual reaction in those showing resorption of embryos before the tenth day of pregnancy, either when A also is low, or when several matings, with histories of resorptions, have followed each other without rest periods. However, none have shown the generalized and spontaneous reaction found in the first case. It seems possible that the causative factor there was the curative effect of the cod liver oil acting on foci of keratinization in the uterine mucosa, together with the chance occurrence of a single ovulation cycle.

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1 Evans, H. M., and Bishop, K. S., *J. Metabol. Research*, 1922, i, 343.

2 Wolbach, S. B., and Howe, P. R., *J. Exp. Med.*, 1925, xlii, 753.