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The Inheritance of Pitted Ear (Abstract)

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It was found that the radiation on the first and second days had prevented subsequent development of all cells. Irradiation after the second day inhibited the development only of the cells of the embryo proper.

It is therefore indicated that the yolk and serosa cells undergo a marked increase in their resistance to X-rays after the second day. The yolk and serosa cells are apparently able to complete the process of differentiation following exposure to the radiation. The most evident morphological expression of this differentiation is a marked increase in size, especially of the nucleus. In some of the eggs irradiated on the second day this process of differentiation was so affected that large masses of nuclear material were produced.

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THE INHERITANCE OF PITTED EAR (ABSTRACT)

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Pitted ear is a relatively rare human anomaly defined as a pit in the proximal end of the upper part of the helix. This hereditary malformation has been studied in three different families, not known to be related. Pedigree charts prepared for these families show that one hundred and twenty-seven individuals are involved, of which twenty-four show pitted ear. This physical trait varies greatly throughout the families: the size of the pits ranges from approximately that of a pin head to about that of a match stick; and in depth, from about one-sixteenth to one-half inch. This trait is usually unilateral in its expression, but appears about as often in one ear as in the other; and there are some cases in which it is found in both ears. This character is not inherited as a simple Mendelian dominant, but rather an irregular dominance is suggested.

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