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Effect of Hypophysectomy on the Molar of the Rat.

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The gross and microscopic anatomy of the molars was studied in 2 groups of rats:

A. Completely hypophysectomized. 22 animals. Age at operation: 36 to 64 days. Post-operative life: 63 to 459 days. B. Litter mate controls. Some were unoperated but most were unsuccessfully subjected to operation. Normal oestrous cycles and normal rate of growth. 15 animals.

Significant alterations were observed only in group A. The gross findings in these animals were (a) retarded eruption; (b) shorter length of roots. The histologic findings are summarized below.

1. The epithelial attachment is absent in a number of cases for varying lengths near the cemento-enamel junction so that the enamel is bounded directly by connective tissue or by a cementum spur of varying length and width. In 7 animals the enamel shows here some areas of resorption.

2. The enamel is normal in structure except for areas of resorption near which the organic matrix is sometimes seen in decalcified sections.

3. The dentin appears, as a whole, normal in structure. It is resorbed when the resorption of the enamel or cementum has extended beyond the dentin boundary.

4. The pulp usually shows a reduced blood supply. In some cases it shows advanced atrophic changes and contains calcified globules. The size of the pulp chamber and pulp canal appears to be larger than normal.

5. The cementum shows an abnormal frequency of resorption which is most prominent at the bifurcation level and least prominent at the apical portion of the root. In some of the animals of longest post-operative life a great number of globules of various sizes that stain like the cementum are seen at the cementum surface which faces the periodontal membrane. In some cases similar but larger globules are seen in the periodontal membrane. These globules appear to be arranged in the direction of the periodontal membrane fibers. Cementum apposition is found to be continuous throughout the entire post-operative life.

6. The periodontal membrane contains an abnormal increase in the number of epithelial rests. These are usually proliferative and larger than normal. In advanced cases some of them are found to form into small cysts or to become calcified. The blood supply is below normal.

7. The alveolar bone shows an increased number and crowded arrangement of cementing lines. Bone apposition is found to be continuous throughout the entire post-operative life.

The actual conditions in a given case are progressive and thus depend on the time elapsing between the operation and the death of the animal.

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A New Method for Determining Intravenous Pressure.*

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Intravenous pressure may be estimated clinically either by direct or indirect methods. Direct methods, while more accurate, have certain disadvantages—impossibility of frequent determinations in the same patient, the necessary prerequisite of strict asepsis, the possibility of clot formation in the needle, the difficulty sometimes encountered in puncturing a vein in obese persons, and occasionally apprehension of patients which results in an elevated venous pressure.

The indirect or bloodless methods are free from most of these objections but the prevailing procedures have other disadvantages. The most serious objections are that the end-point is not sharp and correct estimations are therefore difficult, that the impossibility of applying such methods to obese persons in whom the veins are not visible above the surface of the skin, and that the end-point must be determined quickly.

The method we have developed is based on the principle that the superficial veins on the dorsum of the hand can be visualized easily in a darkened room by placing a small light, such as an ordinary pocket flashlight, against the palmar surface, preferably in the inter-

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