

media, with the exception of the place near the suture line. Here there was noticeable a hyperplasia of the intima, which was apparently due to the irritation caused by the silk suture acting as a foreign body.

The most important abnormality found in nearly every vessel examined was a new fibrous tissue formation in the adventitia, and this adventitial connective tissue formation was apparently the only cause for the thickening of the wall of the vein on gross inspection.

On the other hand, it is interesting to note that an obliterative endarteritis was found in two experiments where infection took place after the operation.

The conclusion must be drawn, as a result of the investigation, that an arterial lesion cannot be induced artificially on a previously healthy blood vessel of a dog by mechanical change within the vessel.

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**The relation of the thalamus to respiration, blood pressure and blood supply of the spleen.**

By **E. SACHS.** (By invitation.)

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In the past year I have been carrying on, in Dr. Wolf's laboratory at Cornell, some experiments on the optic thalamus in cats with Clarke's stereotaxic instrument. In some work on the anatomy and physiology of this region, published in *Brain* about a year ago, I showed that the thalamus could be anatomically divided into a median and lateral portion. The lateral was connected with the pre- and post-central gyri, or what corresponds to this area in the carnivora, while the median portion composed of the anterior and median nuclei was intimately connected with the nucleus caudatus and rhinencephalon.

In my present work the relation of the thalamus to blood pressure, respiration and changes in spleen volume was studied. Bechterev and his pupils, Christiani and Ott, have found variations in these functions, and the former has claimed that special centers exist in the thalamus for these functions.

My experiments up to the present time have shown that marked rise in blood pressure occurred on stimulating Meynert's reflex bundle, the median nucleus, the fornix and the anterior commissure. This rise has been, with but one exception, accompanied by a slowing of respiration or apnoea. The lateral part of the thalamus yielded slight, if any, changes in blood pressure.

Changes in spleen volume, with but two exceptions, have never occurred independently of changes in blood pressure. Usually the spleen volume was increased when the blood pressure rose, though on several occasions it fell.

In the anterior corpus quadrigeminum I have several times obtained changes in respiration without changes in blood pressure.

These facts bring out two important points. First of all, that the marked blood pressure changes occur particularly when stimulating the median portion of the thalamus, particularly the olfactory system, somewhere in its course, and as this is highly developed in the Carnivora, it seems most probable that we are dealing here with phenomena following the introduction of strong sensory stimuli rather than independent centers.

Secondly, what is the primary factor in these changes? Are the changes in blood pressure and in spleen volume secondary to respiratory changes or are they phenomena occurring at the same time as, but independent of, the respiratory change? On this point further work is necessary before a positive opinion can be expressed.

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**The influence of oils and of lecithin on the protein metabolism.**

By **LLOYD H. MILLS** and **JOHN R. MURLIN**.

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Experiments intended to determine the influence of different quantities of vegetable oils, like olive oil, cotton-seed oil, and peanut oil, on the metabolic processes, when injected subcutaneously, have been performed on dogs and rabbits. One experiment on an otherwise fasting dog is presented herewith. The oil given in this case was cotton-seed oil put into the form of a very fine