CONDITIONING TECHNIQUE OF
PSYCHOPROPHYLACTIC PREPARATION OF
THE PREGNANT WOMAN

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Pain

The study of pain should be conducted in respect to its
production, transmission and finally its perception.

It is known that sensation is due to the peripheral irritation of the
corpuscles of Vater and Paccini and free nerve-endings.

From there, the impulses follow the nerve fiber which, by way of the
posterior roots of the spinal cord, penetrate the posterior horn of the
grey medullary substance, cross the median line by way of the grey
commissure, and reach the lateral fasciculus of the opposite side of
the cord to get the thalamus. From there, after synapsing with
other fibers, transmission is projected upon the cerebral cortex.

We are mostly concerned with the problem of pain perception.
There are two theories: the first postulated by Head, considers the
thalamus as being the center of pain. The second describes the thal-
amus as being a relay station, and attributes pain perception to the
cerebral cortex. This second conception has been convincingly de-
fended by Pavlov.

By experimentally defunctionalizing the cerebral cortex, either by
anesthesia or by excision, he demonstrated that pain stimuli can be
related to two different types of phenomena: the unconditioned reflexes,
subcortical, unconscious; and the conditioned reflexes, cortical, con-
scious, which are the only ones manifesting the subjective phenomenon
of pain.

In man, it was evident that anesthesia suppressed both consciousness
and memory of pain. This thereby showed that these phenomena were
cortical. In anesthesia, only in conditioned reactions, motor and vege-
tative, with subcortical circuits persisted.

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The great variability of pain intensity, according to the surrounding conditions constitutes a valuable argument.

Everyone knows what great modifications painful sensation can undergo, depending upon various activities.

A distraction or a captivating task can erase a violent headache or toothache. It is known that a soldier in combat can be wounded without realizing it.

Several authors had already noted, without appreciating all the possible consequences, the attenuation and even disappearance of pain phenomena by concentration of the attention, or by muscular effort.

It is to the school of Pavlov that merit is due for the proof of the cortical character of pain sensation, and the mechanism of its transformation.

The famous experiment reported in his Lectures on Conditioned Reflexes and accomplished by Dr. Erofeeva is a brilliant demonstration of this fact:

We take a dog with a chronic salivary fistula—our usual laboratory animal for these experiments—and let a strong electric current act on his skin. This, according to the subjective terminology, is a pain stimulus; but according to the objective term is a destructive stimulus. It is obvious that the answer to such a stimulus is a usual reflex, a defensive reaction of the animal; he protects himself with all his might against the stimulus. He tries to break loose from the stand, he bites the stimulating apparatus, etc. The stimulation passes into the center of the defense reaction; it is expressed in defense movements. If you repeat this experiment for several successive days, the irritability of the animal increases with each repetition, and the defense reflex becomes reinforced.

But let us perform this experiment in another way. If you give the dog food during the action of the destructive stimulus (he will not eat the food, forcibly introduced into his mouth in order to stimulate the taste cells), you will notice that the defense reaction becomes weaker and weaker, and in the course of time may vanish. This means that you have before you a fact from the first category—an inhibition.

The stimulation of the food center leads to inhibition of the center for pain reflexes

If feeding is often repeated simultaneously with the pain stimulus, finally you will not only fail to have the defensive reaction, but, on the contrary, with the application of the electric current, you will see that the dog develops the food reaction; he turns toward you, looks toward the place from which the food is brought, and saliva flows. The stimulation which entered into the center for defense reaction, now passes over the food center—i.e., the center which governs the movements and