

Medical Matters.

PROBLEMS OF GROWING AND LIVING.



An interesting lecture given by Professor Rubner, of Berlin, to the Vienna Society for Internal Medicine and Paediatrics, is reported by the *Lancet*. The Professor, who has made a special study of questions relating to development and growth, said that the main factor influencing the growth of the child was the inherited rate of cell proliferation and cell division. The weight of the newly born creature was doubled by growth in very different intervals in different animals. For instance, to double its weight the newly born progeny of the rabbit requires 6 days, and of the cow 47 days, while the human infant requires 180 days. Intensity of growth was thus very variable, but the quantity of energy required to bring about this doubling was remarkably equal in a number of animals, being about 4,000 calories of the body weight, while in man it was 29,000 calories. Of the entire quantity of energy represented by the food ingested, the lower animals required about 84 per cent. for growing, whereas man required only 5 per cent. The milk of the different species, therefore, showed in its percentage composition the same variety in regard to quantity as was shown by the energy required for the process of growth. The only function of the sugar and fat in milk was to reduce as much as possible the metabolism of albumin in the body, so that the largest possible quantity of albumin might be free to serve the purpose of growth. The slow growth of the human body was perhaps compensated by the greater development of the brain. Man had, moreover, an exceptional position in regard to the duration of life and its relation to the duration of the period of growth. In the horse, cow, and dog, the period of growth was from one-sixth to one-seventh of the total duration of life. In man one-third to one-fourth of the whole duration of life was spent in the development of the body.

The living substance of man was far more active in metabolism than the living substance of other warm-blooded animals; the older opinion that the contrary was the case was erroneous. The termination of life was, perhaps, best explained by the hypothesis that the dissociative quality of the protoplasm was exhausted when it had accomplished a certain amount of work which was equal in every species.

The Special Nursing of the Ear and Nose.

NURSING LECTURES DELIVERED AT THE ROYAL EAR HOSPITAL.

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LECTURE IX.

NASAL OPERATIONS (*concluded*.)

We have to-day to consider the operations upon the nasal accessory cavities, and upon the post-nasal space.

The former consist in operations upon the maxillary antrum, the frontal sinus, and the sphenoidal sinus. They are chiefly done for the evacuation of pus from those cavities.

In the *diagnosis* of empyema of the accessory nasal cavities, the *transillumination lamp* is sometimes used. This is a small lamp which is placed in the patient's mouth so that the translucency of the walls of the frontal sinuses and maxillary antra may be tested. The examination should be made, if possible, in a dark room, but, if this is not available, it is sufficient to cover the heads of the surgeon and patient with an opaque black cloth, so secured as to prevent the access of outside light.

The *maxillary antrum* is frequently opened for empyema, that is to say, a collection of pus therein, with subsequent drainage. In very early cases, the removal of an offending tooth, with or without enlargement of the socket, and drainage through it, a tube of silver or rubber, or a rubber plug being inserted to prevent too early closing.

Sometimes preliminary tapping through the nose with a Krause's trocar and canula is done under cocain, both as a diagnostic and as a therapeutic measure, lavage being performed through the canula.

In the former case an antrum drill, with drainage tubes, plugs, forceps, swabs, and antral syringe are required. Tooth forceps are also necessary if a tooth has to come out. The perforation is, however, sometimes done in the space left by the loss of a tooth. The after treatment consists in the daily washing out of the cavity by means of a ball syringe, a siphon irrigator, or a Higginson's syringe, with some weak antiseptic solution until no trace of pus appears. The solution, entering by the tube in the tooth socket, flows out of the nose, passing through the nasal opening of the antrum.

In more chronic cases, the treatment just mentioned is not sufficient, and a more radical operation is required. Various methods have been devised, but that I am about to describe and which I now adopt, is a very satis-

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