

## Progress of Science.

### A FEW NOTES ON THE THERAPEUTICS OF COD-LIVER OIL.

By T. Simpson, M.D., Consulting Physician to the Montreal General Hospital, &c.

Perhaps there is no remedy of its class which has been so universally prescribed and used as cod-liver oil. It has been recommended in almost every disease to which flesh is heir, both as an external application and an internal remedy. And this has been going on from time immemorial. The fat of fishes was used as a remedy in the days of Pliny, and for over a hundred years just passed, its steady employment, with scarcely a break, in rheumatism and in disorders having an origin in struma has obtained.

As an evidence of its extended use, I may mention that a middle aged man whom I met on the north shore of Lake Superior thirty-five years ago, informed me that as far back as his memory carried him the fat of certain fishes caught on that coast, and especially the livers, were fed to the emaciated and those suffering from diseases of the chest, accompanied by cough, by the fishermen, who at time were nearly all natives or "half-breeds." I could not discover how far back this plan of treatment extended, or whether or not it had been introduced by the whites. It must, however, be admitted that a knowledge of, and faith in, the virtues of cod-liver oil as a remedy extended far and wide and have existed for ages. It follows also that there must be a solid basis for such opinions.

I have just said that it has been used, at one time or another, in almost all diseases; and whilst on the one hand its more than common use is a direct compliment to its efficacy, on the other hand an injudicious and indiscriminate administration has frequently brought it into undeserved disrepute.

Broadly, it may be said that cod-liver oil is indicated in a very large class of subacute and chronic diseases in which emaciation and debility are prominent, accompanied by, or resulting from mal-assimilation of food or perverted nutrition.

In various forms of tuberculosis, including those of the skin, and notably lupus, in rachitis, in tardy ossification of the bones and growth of the teeth in children, often accompanied by tumid liver and abdomen, in softening of the bones in adults, in a variety of skin diseases, notably psoriasis, occurring, in children and young women ill-nourished or emaciated, or tainted by scrofula or syphilis, it is indicated. I have known it, when judiciously administered remove most extensive psoriasis, after the failure of the usual remedies, including arsenic and chrysophanic acid.

As a purely local application, I am satisfied that it does not possess any property which would compensate for the uncleanly and malodorous practice; nevertheless cases occasionally, though rarely occur, in which it is advisable, failing other means, to attempt its introduction into the system by inunction. It is, however, a most unsatisfactory method.

In chronic arthritis, and in the chronic and scarcely inflammatory musculo-fibrous rheumatism of the aged and debilitated, accompanied by rigidity of the muscles and stiffness of the joints, the medicine is indicated, and will often procure decided relief of pain and more or less relaxation of the muscles and joints.

But it is as a remedial agent in the treatment of pulmonary consumption and certain chronic bronchial ailments—especially such as are attended by copious muco-purulent expectoration—that cod-liver oil has acquired its reputation, and although its beneficial action is doubtless owing chiefly to its nutrient qualities, still it possesses others in addition. It has been found that bland and wholesome oils—olive and others—admirably adapted for fat food, when readily assimilated, increase the weight and strength of the patient. But cod-liver oil does this and more; it promotes assimilation, lessens waste of tissues, often restores appetite, and diminishes cough and expectoration. It favours the expulsion of tuberculous matter, as well as lessens the tendency to its formation. In short, in favorable cases, when the stomach is in fair working condition, it ameliorates all the symptoms and in some cases restores health. Unfortunately these latter are decidedly few in number, especially among persons inheriting the tuberculous diathesis; nevertheless many persons live for years in comparative comfort, owing chiefly to the persistent and judicious use of the oil. The disease is not cured, but held in check.

It has been charged with the production of hæmoptysis by enriching the blood and increasing the number of red corpuscles, in this way inducing local hyperæmia in parts adjacent to tuberculous deposit, but as hæmoptysis frequently occurs in phthisis where no medication has been used—is often the first symptom of its presence—I am not disposed to attach much importance to the charge. Its use, however, should be suspended during hæmoptysis or the supervention of any acute intra-thoracic inflammation. Its whole action on the economy is what may be called altero-nutritive, and whilst it cannot be pretended that it has any direct and local effect on the bacilli of tubercle, it may under favourable circumstances render their bedding and feeding ground untenable.

Its marked alterative action and influence on digestion over other fats is accounted for by the presence of bile constituents and other substances, chiefly bromine, iodine, iron, and phos-