and (2) that extirpation of the Gasserian ganglion through the base of the skull, though admittedly a difficult undertaking, need not endanger life, and at present holds out the best prospect in dealing with the intractable forms of trigeminal tic.

[During the lecture, which was illustrated by diagrams and microscopical specimens, Mr. Rose demonstrated the different stages of the operation on the cadaver.]

NOTES ON THE USE OF PILOCARPIN IN DERMATOLOGY.

By ROBERT M. SIMON, M.D., M.R.C.P.,
Physician to the General Hospital, Birmingham.

THOUGH G. Simon, in 1879, and Pick, in 1880, published important papers on the Therapeutical Use of Pilocarpin in Diseases of the Skin, there has been no notice of its employment in England except in alopecia areata. In November, 1890, Dr. Klotz read a short paper on Pilocarpin in Dermatology, and, though his personal experience was limited, spoke in the highest terms of its value; but it is a matter for wonderment that the American Dermatological Association, before whom the paper was read, seemed to be unable to discuss it from lack of experience of the use of the drug.

There is abundant *a priori* reason for expecting benefit from its use in cases of great thickening of the skin, such as chronic eczema or scleroderma. Of the latter disease I have had no case; and though it does not fall to the lot of a physician to a general hospital to see many cases of very chronic eczema, I have tried pilocarpin in a few with the happiest results. It has been objected that it is a drug requiring heroism to administer and great care in its administration. If, as is indeed the case, this be so, it can be replied that we want to use pilocarpin only in cases in which other remedies are useless, and our patients often in very great distress.

S. P. came under my charge after having spent much time and money at Harrogate and elsewhere in trying to get relief. For fifteen months he had had eczema, and suffered acutely from the itching and distress dependent upon it. Nothing had given him much relief. He was ordered bran baths, and a lotion containing half an ounce of liquor carbonis detergens to a pint of lime water, while liquor arsenicalis, with small doses of iodide of potassium, was given internally. When I saw him his skin was enormously thickened and pigmented by the protracted inflammation, and I held out to him no hope of improvement until this thickening had been absorbed. To effect this, ointments containing salicylic acid were tried, but without much result, so on March 5th, 1891, he was admitted into the General Hospital to try subcutaneous injections of pilocarpin. The dose employed was at first one-eighth of a grain, and subsequently one-sixth of a grain, twice daily. There was very little sweating at first, but a good deal subsequently; otherwise, beyond relief to the itching, no obvious results were noted; but gradually the skin got thinner and the irritation less. He had to leave the hospital on April 2nd for business reasons, but was readmitted on June 9th. The same treatment was adopted, and on July 8th he was again discharged as he felt so very much better. Two months ago I received a very grateful letter from him, saying that he was quite well and that his skin was normal. He had altogether 110 injections, but never suffered local or general discomfort therefrom.

Though the course of treatment may seem to have been very prolonged, and to be one requiring great patience, both on the part of the patient and the doctor, it must be remembered that we know no other remedy which could be expected to produce anything like so good, if indeed any, result.

Pachydermatous conditions are always serious, and though local thickenings may be fairly easily dealt with, a general diffuse chronic inflammation of the skin has hitherto been almost beyond the power of medicine to cure. The difficulties of applying keratolytic agents over a large surface are almost insuperable, and the advantage is not commensurate.

For the relief of prurigo senilis I have found nothing so useful as the hypodermic injection of pilocarpin, and, though the relief is only temporary, to a patient worn almost to death by itching and sleeplessness a few days' respite is a glimpse of heaven. In psoriasis I have met with no good results from the use of pilocarpin, and in subacute eczema with bad ones.

SUCCESSFUL VACCINATION.—Mr. John J. Powell, of Weybridge, has just received the Government grant of £11 19s. for successful vaccination.

REMARKS

ON THE

FUNCTION OF THE THYROID GLAND:

A CRITICAL AND HISTORICAL REVIEW.

By VICTOR HORSLEY, F.R.C.S., F.R.S.,
Surgeon to the National Hospital for the Paralysed and Epileptic;
Assistant-Surgeon to University College Hospital; Professor of
Pathology in University College, London.

(Concluded from page 219.)

THE EFFECTS OF THYROIDECTOMY.

I have thus far been compelled to assume what is a matter of common knowledge, namely, that the extirpation of the thyroid tissue in a healthy animal will, under certain circumstances, produce a remarkable and fatal series of symptoms which have been spoken of as "cachexia strumipriva," or "cachexia thyroidectomica," etc.

These conditioning circumstances and the details of the cachexia must now be briefly recounted. Of these, the first and the most important, fundamentally, is the question of the class of the animal, inasmuch as the physiological value of the gland differs very considerably according to the species employed.

Effect of Class of Animal upon the consequences of Thyroidectomy.

Birds, Rodents, Ruminants, etc.—In the first place, it appears that thyroidectomy in birds is never accompanied by cachexia. This has been established in chickens by Allara, and very carefully by Ewald and Rockwell in pigeons. It is possible, however, that duration of life after the operation may in these animals play the important part it does in some other orders. From his earliest experiments Schiff recognised that the rodents (rats and rabbits) differed from the carnivora so far as the effects of loss of the thyroid gland were concerned, and in his first publications he drew attention to this important fact. Philipeaux also found that no effect followed thyroidectomy in albino rats. In the same year Colzi demonstrated that the rodents did not show the cachexia, as also Rogowitsch, and later Albertoni and Tizzoni. I found myself that whereas the carnivora showed the cachexia in its most marked form, it was less marked in the monkey and absent in rabbits; however, the influence of duration after the operation has never been discounted in the case of rodents. On turning my attention to the ruminants, solipedes, and suidæ, I found that in the sheep in one case, after preliminary symptoms had shewed themselves, the animal survived a considerable interval of time—569 days—at the end of which exposure to cold determined the onset of the fatal symptoms.¹¹ Exactly the same was observed with a donkey, in which preliminary symptoms followed the loss of the gland for some weeks, and then, these having ameliorated, the fatal cachexia supervened after a long interval¹² of months when the animal was exposed to cold. In pigs observations by myself and by Munk have yielded negative results, but the animals were not observed for a sufficient length of time, the more especially as the gland in these animals is relatively small. Many years before von Rapp removed the thyroid from a goat, which was stated to have survived, but not watched for a long period. It has also long been known that the removal of goitres in horses and mules is ultimately fatal. It is evident that many more experiments are very requisite in these larger animals, but so far as the positive results go the conclusion is obvious that certainly in the ruminants and solipedes the operation of thyroidectomy is followed by the usual fatal cachexia after an interval of many months.

¹¹ The first sheep referred to on page 76 of the *Clinical Society Report* as surviving has since died—that is, more than three years after the thyroidectomy. Unfortunately its symptoms were very imperfectly observed. *Post-mortem* examination (without chemical examination) showed oedema of the lung, serous effusions, etc.

¹² If anything were wanting to demonstrate the fallacy in Munk's view that the cachexia thyroidectomica is due to injuries of the nerves in the neck it is the fact that in these large animals and in monkeys the symptoms are not well marked until the wound is absolutely healed, and the tissues perfectly quiescent, in some cases for months.