M. Greffier has carried out some experiments with the object of testing the practical value of this proceeding. He has systematically inoculated guinea-pigs with pharyngeal mucus taken from animals found to be affected with pulmonary tuberculosis at the autopsy. The experiments were made under the control and direction of Professor Nocard, and in his laboratory.

The results obtained were as follows :—

On the 14th December 1889 a guinea-pig was inoculated under the skin on the inner side of the thigh. It was killed on the 15th January 1890, and the spleen and sub-lumbar glands were found to be the seat of tubercles.

On the 2nd February 1890 a second guinea-pig was inoculated in the peritoneum, and at the autopsy, made on the 1st March there were found the same lesions as in the first subject.

On the 1st of March three guinea-pigs, which may be designated by the letters A, B, and C, were inoculated with mucus from three different animals, of which one ox and one cow were in good condition. On the 23rd of the same month A died tuberculous, its spleen and omentun being covered with specific nodules, and its glands being infiltrated. On the 18th April B and C, which had been inoculated from the subjects in good condition, were killed; B was tuberculous, C was healthy.

On the 21st March a guinea-pig was inoculated with pharyngeal mucus from a very fat tuberculous ox. The guinea-pig was killed on the 18th of April, and at the autopsy it showed only a non-bacillary abscess in the abdominal wall.

On the 18th April a guinea-pig was inoculated under the skin of the thigh with mucus from a fat ox. Autopsy 17th May, result negative.

On the 30th April two guinea-pigs were inoculated under the skin with mucus from two cows. On the 25th May one of the guinea-pigs died tuberculous, its spleen and glands being infiltrated; the other had in the flank an indurated gland the pus of which was rich in bacilli. On the 21st July (the date of this communication) the last mentioned animal was still vigorous, and the gland was still enlarged.

On the 17th May two guinea-pigs received each, under the skin of the thigh, an injection of diluted mucus. On the 21st July the two subjects were killed; one of them had been for a long time very thin, and had had an indurated gland; at the autopsy it was tuberculous. The other animal showed nothing.

On the 13th June a guinea-pig was inoculated with mucus from a cow. An ulcerous abscess very rapidly formed at the point of inoculation, and the animal became emaciated; it was killed on the 7th July, and it then showed generalised tuberculous lesions.

The presence of Koch's bacillus was ascertained in all the positive cases.—*Recueil de Médecine Vétérinaire* 30th August 1890.

THE TREATMENT OF GLANDERS.

SINCE Professor Levi of Milan recommended intra-tracheal injection of iodine and iodide of potassium as a means of curing chronic glanders, several veterinary surgeons have given the treatment a trial, and, it is alleged, with results so favourable that the possibility of curing the disease must be regarded as proved. The latest testimony to the efficacy of this treatment emanates from a Russian army veterinary surgeon, Mr Neïmann, who has communicated the results that he has obtained to the *Société Centrale de Médecine Vétérinaire.*[1]

In all, Neimann has treated sixteen horses attacked with glanders, and the whole sixteen were cured. Four of these belonged to a regiment where the horses received all the hygienic care necessary, but the others belonged to

[1] Recueil de Med. Vet. 30th August 1890.

private persons, and were placed in very bad hygienic conditions. Six horses were treated in winter, and had to suffer greatly from the severe cold.

Before submitting each horse to treatment, whether the clinical symptoms proved sufficiently that the case was one of glanders or merely excited suspicion, the nasal discharge and the submaxillary lymphatic glands were examined bacteriologically, and young dogs or cats were inoculated with the cultures.

Treatment was never commenced until positive results had been obtained—that is to say, until a positive diagnosis could be affirmed with certainty.

The state of the disease was not the same in all the animals. Nine of them had been ill for several months, and showed clearly the symptoms of nasal glanders; the others presented only a nasal discharge, with slight tumefaction of the submaxillary glands, but in these also a positive diagnosis was made possible by bacteriological researches and experimental inoculation of dogs or cats. In no case was farcy associated with the glanders.

The treatment employed was precisely that recommended by Professor Levi, viz., intra-tracheal injections of a solution of 1½ grammes of iodine and 7 grammes of iodide of potassium in 100 grammes of distilled water. At the outset from 5 to 14 grammes of this solution were administered, and the dose was gradually augmented. The maximum was 30 grammes per day, and that quantity was afterwards gradually diminished, so that ordinarily at the end of the treatment only 10 gramme doses were administered. No other treatment was employed.

The amelioration obtained was marked in a different manner in different subjects. The nasal discharge commenced to diminish towards the twelfth day of treatment, and it always ceased completely at the twentieth day; during this time the ulcers on the nasal mucous membrane were cicatrising. Finally, after twenty or twenty-five days of treatment the engorgement of the submaxillary glands also disappeared. In general the treatment lasted for a month, and all the animals that were submitted to it supported it without any bad effect.

After each recovery bacteriological researches were made, and young dogs or cats were inoculated with the nasal mucus of each horse, care being taken to collect this after more or less prolonged exercise.

With regard to the possibility of a relapse, Neimann has made the following observations. Four horses which were cured in 1886, and have since been submitted to close scrutiny, have not shown any symptom which could lead one to suspect a relapse, their state of health being most satisfactory. After more than a year the other twelve horses have not presented any suspicious symptom; four of these, six months after the cure, were submitted to bacteriological examination, and experimental inoculations were also practised from them, but in every case the result was purely negative.

SPONTANEOUS RECOVERY FROM RABIES IN A SOW.

In October last there was brought to the Toulouse Veterinary College a sow, aged three years, which on the previous day, in returning from a fair at which it had unsuccessfully been exposed for sale, suddenly exhibited rabid symptoms. It set off at a rapid rate across the fields, and it bit the hand of a man who tried to stop it. It ran as far as an adjoining village, where it lay down behind a wall, menacing everyone who approached it. Finally it was seized, choked, and put into a cart, in which it was taken to the Veterinary College. When seen by Professor Peuch its symptoms were as follows: It lay persistently, and appeared indifferent to all that was going on around it; it was