SERUM-ANAPHYLAXIS: A CASE ILLUSTRATING ITS POSSIBLE GRAVITY.

By A. BANKIER SLOAN, M.D.,

DISPENSARY PHYSICIAN, WESTERN INFIRMARY AND ROYAL HOSPITAL FOR SICK CHILDREN, GLASGOW.

THE subject of serum-anaphylaxis is one that deserves the closest investigation. The leading article in the *BRITISH MEDICAL JOURNAL* of May 21st attracted my attention and reminded me of a case I had under my care in 1903, which I have often thought of reporting. I now put the facts of the case on record on account of the importance of the condition it illustrates and in view of the statement made in the said article that certain authorities hold "that serum-anaphylaxis in man gives rise to transient symptoms only, and never to dangerous or permanent consequences."

My case at the time of its occurrence was a complete mystery to me, and, although I did hear at the time that at least one other similar case had occurred in a Metropolitan Asylums Board hospital, no one to whom I referred could throw any light on the causation of the symptoms. It has been, however, for some time quite clear to me that the condition was due to anaphylaxis.

The patient was under my care in the Western Hospital, Fulham, one of the Metropolitan Asylums Board hospitals, and the facts are as follows:

H. C., aged 3½ years, was admitted to the Western Hospital on January 30th, 1903, suffering from faucial and nasal diphtheria. The faucial involvement consisted of swelling of the tonsils and the presence of patchy membrane; there was considerable rhinorrhoea; the glands at the angle of the jaw were not markedly swollen. The child received 12,000 units of diphtheria antitoxin (volume of serum about 30 c.cm.) on admission, and 12,000 units the following day, as, although the membrane on the fauces was not extensive, the child seemed moderately ill.

His recovery during the following week was unduly slow, his temperature keeping up in a way which to me did not seem quite accounted for by the local conditions. He had during this time a little bronchial catarrh.

On February 10th some punctate erythematous rash appeared on the trunk and face; there was a tendency to factitious urticaria; the lymphatic glands generally were rather enlarged. The following day the glands at the angle of the jaw were distinctly swollen and tender, and the evening temperature was 104.6° F. By the 13th a typical measles serum rash had developed and the face was slightly swollen. This rash was intense on the 14th, being distinctly haemorrhagic in character on the right hand and left leg. It was also noticed that although the throat was generally quiet the left tonsil showed a patch of haemorrhage.

Between the 11th and 16th the temperature was never below 101° F., and varied between that and 104.6° F. as a maximum (Chart 1); during this period the child was sharply ill.

His convalescence was slow for the type of diphtheria he suffered from, and this was due, I think, to the severe serum reaction. By March 16th he had only been out of bed for a few days.

Chart 1.—A, 12,000 units A.T.; B, rash; C, rash, haemorrhagic.

On the evening of March 16th his temperature rose to 100.6° F., and examination of the throat showed a patch of distinct membrane on the posterior pharyngeal wall. On account of his previous severe serum reaction no antitoxin was given that night. Next morning, however, as a small patch of membrane was present on each tonsil in addition to that on the pharynx, 12,000 units of antitoxin were administered at 12 noon. At 1.15 p.m. I got an urgent message from the staff nurse to come and see the child, as he was very ill. When I arrived immediately afterwards I found him ghastly pale in colour, anxious-looking, shivering, covered with a cold, clammy sweat, and almost pulseless. His condition was so urgent, and to me so unaccountable, that I at once sent for a colleague to

see him with me. Fortunately, after the application of heat and the use of brandy and strychnine, he gradually warmed up and rallied somewhat. Marked urticarial rash appeared by 2 p.m., causing swelling of the face.

During the following night he was very restless and vomited frequently. On the morning of the 18th, although he was better, neither the radial pulse beats nor the cardiac sounds could be counted accurately owing to their great frequency. It was noted that subcutaneous haemorrhage had occurred around the seat of injection.

By the 19th he was considerably better, vomiting had ceased, and the heart-rate was 132 per minute. From this time onwards the boy very gradually improved; the temperature, however, did