

toms rarely follow inhalation anaesthesia, lasting so short a time.

The third case was most unfortunate for Dr. Jonnesco's claims. It was a case where the high puncture was used, the operation being for a small osteoma of the forehead in an excitable Italian of nineteen years of age, also epileptic, and with a mitral murmur. The operation lasted twelve minutes. There were shock, respiratory failure and collapse, and the patient had a very narrow escape. Artificial respiration with traction on the tongue was kept up for twelve minutes, oxygen and other stimulants were given, the rectal sphincter was completely stretched without effect. The respiration was not normal for twenty-four hours, and there was shock for forty-eight hours, also delirium, so that a strait-jacket was required. In this case cerebation was as completely abolished as in chloroform, or other anaesthesia. The conclusion of the reporter in these cases at the Post-Graduate Hospital is as follows: "While the use of stovaine and strychnine anaesthesia in competent hands and in selected cases unquestionably has its advantages over the general forms of anaesthesia, still, at the present time we are not convinced of its efficiency in general use. Administered in the upper portion of the spinal cord, if we can draw conclusions from the one case mentioned, its dangers far exceed those of the older methods."

Dr. Jonnesco's experience in Philadelphia would seem to have been also rather unfortunate. In one case, amputation of the breast, presumably a case of high puncture, the patient nearly died, artificial respiration had to be employed, and the operation

was completed under ether. As Professor Jonnesco's method is on its trial, and has so far not impressed surgeons very favourably, we shall let him have the last word. He claims that puncture of the arachnoid may be made at any level and that the addition of strychnine to the anaesthetic makes it safe, but that mid-cervical and mid-dorsal injections have no advantage over the two localities he advises for puncture. He claims that "there are no contra-indications for general spinal anaesthesia," he goes so far as to say (*British Medical Journal*, Nov. 13, 1909, p. 1401), that "general spinal anaesthesia is absolutely safe; it has never caused death, nor produced any important complications, early or late." (We have heard of permanent loss of sphincteric control following spinal anaesthesia, but not after Jonnesco's method). He says: "I am firmly convinced that general spinal analgesia will be the analgesic method of the future." In a letter in the *New York Medical Journal*, in reply to various criticisms he maintains his ground, and in regard to the case in Dr. Morris' clinic which gave so much trouble, he claims that the phenomena were due to an epileptic seizure which came on as the operation was begun. He points out that he has effected twentythree spinal analgesias in America, sixteen by the low and seven by the high puncture, and all were successful, five of the high punctures being "successful in every way." Beside the seven high punctures done during his visit to the United States, he has done 187 high punctures without serious accidents.

We shall wait the arbitrament of time.