CONTROLLABLE SPINAL ANÆSTHESIA, "SPINOCAINE."

METZ.

BY GEORGE F. PITKIN.

For several years I have been using Spinal Anaesthesia as described by various operators endeavouring to obtain an isotonic solution. The results were more or less unsatisfactory which lead to a series of experiments and investigations with the endeavour to overcome a tremendous drop in blood pressure, to prevent pallor and cold sweats, to minimize the amount of nausea and vomiting, to eradicate post-operative shock and headache and to eliminate post-operative complications. What has been accomplished in this line is well shown in the thirty-one hundred (3100) inductions by myself and associates and nearly six thousand (6000) additional anaesthetics performed by various men in the United States. We have found that we are able to avoid all the unpleasant phenomena of Spinal Anaesthesia.

The blood pressure may be maintained or increased, to any desired degree as the operator chooses. Pallor and cold sweats never occur, nausea and vomiting does not present in more than one or two per cent. of the cases, post-operative headaches are exceedingly rare and when they do occur they are mild. Post-operative complications are almost an unknown quantity. Occasionally they spring up, but when they do they may be traced directly to improper technique.

By experiment we have attempted to establish the time of absorption of the anaesthetic agent, the intra-dural irritability, the elimination time, the relation between the intra-dural and intra-venous pressure and by the use of the gliadan we have concocted a solution of such viscosity that it will not mix or disseminate with the spinal fluid until such a time as the anaesthetic agent has been absorbed. The solution is of a lighter specific gravity and will float upon the spinal fluid, not unlike the air bubble on the spirit level.

By our ability of controlling the anaesthetic, we are also able to regulate the time of the anaesthesia. The nature of the solution is such that the toxicity of the drug is reduced, or, in other words the absorption is rendered so slow that two hundred (200) milligrams or even four hundred (400) milligrams of novocaine may be introduced into the sub-arachnoid space without producing as many toxic symptoms as if one hundred (100) milligrams was dissolved in the spinal fluid and re-introduced.