

WATERS, E. G.: *Regional Anesthesia: Its Use in Obstetrics and Gynecology*. New England J. Med. 226: 380-382 (Mar. 5) 1942.

"The nerve supply of the external genitals is derived mostly from the anterior collateral branches of the sacral plexus and the pudendal plexus (lower sacrals) and the coccygeal nerves, with sympathetic-nerve contributions. The lumbar plexus contributes through the ilioinguinal, genitocrural and occasionally the iliohypogastric nerves. To effect anesthesia, one must block all these nerves. . . . The region may be anesthetized in several ways: by intraspinal block, the procedure of choice in all fat and difficult women; by sacral block; and by perineal field block. . . . I have given over three thousand spinal anesthetics, with but one death that could be ascribed to the anesthetic. . . . We do not claim it to be the only anesthetic to use or the best in every case, and it has definite contraindications. But it is a very good and very safe anesthetic when properly employed, and its use is not infrequently the major factor in a patient's recovery from a difficult plight. . . . Unfortunately, the facility of administering a spinal anesthetic has obscured the value of another form of nerve block—transsacral, with caudal, block. This is a perfectly safe type of anesthesia that is only moderately difficult to employ. The combination has the virtues of subdural block, with none of the hazards. The objections are the time it takes, frustrating fat and, in pregnancy, inability to obtain the optimum induction position. . . .

"There are several effective ways of obtaining a satisfactory perineal field block; the one that I routinely employ, which has proved satisfactory . . . is the blocking of nerves supplying the vulval and perineal region as they approach that area. . . . For deep vagi-

nal work in gynecology, submucosal local infiltration is added, as well as a broad ligament block for cervical procedures, to anesthetize the uterine and vaginal sympathetic plexuses. It is recommended that adrenalin always be added to the anesthetic solution. In obstetrics, the extreme vascularity of the parts causes a rapid washing out of novocain, with anesthetic failure, unless this precaution is taken." 7 references.

J. C. M. C.

ÅAGAARD, G. N.: *Transfusion Reactions and Erythroblastosis Foetalis Caused by the Rh Factor*. Minnesota Med. 25: 4 (April) 1942.

"In 1940, Landsteiner and Wiener first showed that eighty-five per cent of humans had in their red blood cells an agglutinin which could be demonstrated if human red cells were tested with serum from rabbits which had previously been immunized by injections of blood from Rhesus monkeys. Humans possessing this agglutinin were designated Ph positive. Approximately fifteen per cent of humans lacked this property in their red cells. They were called Rh negative. Reports which have appeared recently indicate that the Rh factor may be the cause of a large number of hemolytic transfusion reactions. A causative relationship to erythroblastosis foetalis now seems likely. In addition, there is evidence which suggests that the Rh factor may be of some importance in the production of toxemia of pregnancy.

"Transfusion reactions caused by the Rh agglutinogens and agglutinins were first described by Wiener and Peters in 1940. In their cases the production of the Rh agglutinins in Rh negative patients was stimulated by a first transfusion of Rh positive blood; and a reaction occurred when a second transfusion of Rh positive

blood was given later. It is not entirely clear why transfusion reactions on this basis do not occur more often, if the above percentage of Rh positive and Rh negative individuals is correct. Wiener and Peters offer two possible explanations: (1) that not all Rh negative persons are able to produce agglutinins, (2) that subsequent transfusions of Rh positive blood are either not given or are not given at a time when a high titre of Rh agglutinins is present in the recipient's serum.

"Erythroblastosis foetalis, which includes fetal hydrops, icterus gravis and congenital anemia, has long been an etiological puzzle. . . . It was shown that ninety-one per cent of the mothers affected with erythroblastosis foetalis were Rh negative, in contrast to the fifteen per cent to be expected from the general population. In addition it was shown that one hundred per cent of the affected infants and their fathers were Rh positive. It is likely, therefore, that the Rh positive fetus stimulates the production of Rh agglutinins in the mother's blood. The agglutinins found in the mother gain access to the foetus, cause lysis of the fetal red cells and produce erythroblastosis foetalis.

"Ordinary agglutination technique will only rarely demonstrate the presence of Rh agglutinins. The reaction is most pronounced at refrigerator temperatures. Wiener and Roberts described a sensitive technique which is as follows: One drop of a two per cent saline suspension of donor's cells is mixed with two drops of the patient's serum, the mixture is chilled in water and centrifuged five times. The tube is gently shaken to resuspend the cells, and agglutination is read macroscopically and microscopically. A control of patients' cells and serum is run to rule out agglutination due to an increased titre of cold agglutinins.

"Indications for special studies to

prevent reaction caused by Rh factors are as follows: (1) If repeated transfusions are required for the supportive care of any medical or surgical patient (i.e., blood dyscrasia, chronic blood loss, pre- and postoperative care); (2) Any transfusion during pregnancy or the puerperium particularly if a history of obstetrical complications exists.

"A list of Rh negative donors should be available on every obstetrical service."

"Two cases of transfusion reactions probably due to Rh factors are described. 13 references.

A. W. F.

HARBORD, R. P.: *Anaesthesia for Air-Raid Casualties*. Brit. M. J. 1: 550-552 (May) 1942.

The casualties resulting from an air-raid may be suffering from hemorrhage, established traumatic shock, or burns. Patients in a condition of shock are treated by rest, warmth, morphine, and a transfusion of plasma. If hemorrhage has occurred whole blood is given.

Deep anesthesia should be avoided. So should anesthesia so light that "it may result in shock by allowing the passage of noxious stimuli." Severely injured persons require little of the anesthetic agent, and the anesthesia should fit the patient rather than that the patient should be forced to fit the anesthesia. Respiration must not be embarrassed in these patients. Deficient oxygenation should not be allowed to occur. Spasm of the glottis should be treated by intubation.

The author discusses the technics of anesthesia which have yielded good results: semiclosed nitrous oxide-oxygen-ether, light open ether, ether by the absorption technic, the intravenous barbiturates, and induction by an intravenous barbiturate followed by anesthesia with nitrous oxide or cyclo-