

INTRA-CRANIAL HEMORRHAGE IN THE NEW-BORN: CASE REPORT*

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More than 50 per cent of deaths in the new-born are caused by cerebral hemorrhages due to the hemorrhagic disease of infancy. Over half the new-born infants who now die could be saved by a routine determination of the coagulation time of the blood and by the administration of injections of whole blood or of serum to those who show delayed bleeding and prolonged clotting time.

Multiple hemorrhages into practically every portion of the body have been shown to occur in true hemorrhagic disease.

The classical symptoms of cerebral hemorrhage, bulging fontanel, spasticities, convulsions and respiratory and cardiac disturbances, may occur late in the disease or not at all. The majority of cases of cerebral hemorrhage develop insidiously. External bleeding may occur very late or may not occur at all.

Out of 17 cases of convulsions in the new-born seen by the writer in the past twelve months, 14 had delayed bleeding-clotting time and were in all probability due to cerebral hemorrhage.

Intra-cranial hemorrhage due to the hemorrhagic disease of infancy should be our provisional diagnosis and the bleeding-clotting time of the blood should be our first diagnostic test in all cases of convulsions in the new-born.

Fourteen cases of this condition seen by the writer in the past twelve months' time in a pediatric practice of moderate scope is an index of its frequency.

The following case history is a fair example of the clinical picture:

The mother of Baby B. was taken to the hospital in her home town at the beginning of labor, where it was found she had a contracted pelvis and a cesarean operation was performed.

The child, a boy, weighed nine pounds and was normal in every respect until the second day, when he grew pale and restless and clutched desperately at his blanket on being lifted or moved. This uneasiness was soon followed by

fine tremors and a peculiar piercing cry, and in a few hours by convulsions.

I saw the child the following midnight. The temperature was normal and the bowels had moved well from a dose of oil. The fontanel was only moderately tense, the muscles were spastic and the convulsions, which had continued with increasing severity, were alarming in the extreme. There was marked disturbance of both respiratory and cardiac function. There was no bleeding from the cord or mucous membranes, no occult blood in the stool, no petechial or purpuric spots. There was no occasion for trauma.

The watch-glass method of Rodda showed the coagulation time of the blood to be 19 minutes. The bleeding time was 12 minutes, though blood spots on the bedding showed the heel puncture had again bled from rubbing.

The father was not in the hospital and as we had no means of determining blood groups, 5 c. c. of hemoplastin were immediately injected into the longitudinal sinus and 5 c. c. given in the gluteal muscles. Seven hours later the clotting time was 9 minutes and the bleeding time 5.5 minutes. Twenty cubic centimeters of whole blood were given intramuscularly and 10 hours later the timing showed both clotting and bleeding time well within normal limits with the convulsions having ceased.

The baby made an uneventful recovery and is at present in perfect health.

No lumbar puncture was done in this case, as I believe this procedure of doubtful value except in selected cases. Blood cells in the fluid may be from the spinal veins, though a perfected technic lessens the chance of injury to these.

The points of interest in this case are the occurrence of an intra-cranial hemorrhage in a caesarean baby, the absence of all external bleeding, the severity of the convulsions, their duration of 36 hours before efforts to stop the hemorrhage were made and the prompt cessation of the convulsions when the bleeding was stopped.

Thirteen other cases of intra-cranial hemorrhage seen in the past twelve months all responded promptly to blood therapy. Several did not get beyond the stage of pallor and restlessness, when the coagulation time was taken and the true condition discovered. Only six cases showed external bleeding. One was a true melena.

Since a routine determination of the blood coagulability would reduce the mortality of the new-born practically 50 per cent, and, furthermore, since it would probably prevent a large number of the cases we now see of birth palsies, it is well worth the extra time and care it would take to make this a universal, routine procedure.

The purpose of this report is to accentuate the diagnostic value of a simple test and of a simple therapeutic procedure, to accentuate the frequency of the condition and the importance of its early recognition by routine examination of the bleed-

*Presented in Case Report Session, Section on Pediatrics, Southern Medical Association, Fifteenth Annual Meeting, Hot Springs, Ark., Nov. 14-17, 1921.