

HEMIPLEGIA DURING PREGNANCY, WITH THE REPORT OF A CASE*

By R. A. SCOTT, M.D., F.A.C.S., EVANSTON, ILLINOIS

(From the Obstetrical Service, Evanston Hospital)

ONLY a few cases of hemiplegia with onset during pregnancy have been reported and practically all of these seem to have resulted from cerebral thromboses. Lafon's admirable review of the literature in 1896 revealed 25 cases; in 1925 Talley and Ashton were able to add only 17 more. A recent search of the literature failed to find any additional cases. The case here reported is the only one that occurred during the pregnancies of the last 5,000 women delivered at the Evanston Hospital.

The hemiplegias due to cerebral thrombosis nearly all occur in the first three weeks of pregnancy. The cause has been traced to some focus of infection in about 75 per cent of instances. In all cases reported there were no deaths and about 50 per cent made a partial or complete recovery.

The case reported here occurred in Mrs. N., 25 years old, para ii, who presented herself for prenatal care March 15, 1926, in the second month of her pregnancy. The general examination was negative. There were no complaints. The blood pressure was 112/82 and the urine was negative. From March 15 to September 6 the patient was seen at the office every second week. The systolic blood pressure varied between 98 mm. and 112 mm. of mercury. There seemed to be nothing unusual about the patient's progress until during an office call late in July she mumbled something unintelligible and began to cry. She explained with difficulty that it was hard for her to form the words that expressed her thoughts. As the patient was of a rather excitable temperament, the condition was attributed to an attack of hysteria and triple bromides were prescribed. That evening she reported herself much improved. From this time until September 13 attacks similar to the one just mentioned occurred on several occasions, usually when the patient was very tired or had had some undue excitement. Each attack subsided following administration of bromides. On the evening of September 13, 1926, after spending an unusually quiet and pleasant day at her mother's home and feeling exceptionally well, the patient was preparing to retire when she was seized with a feeling of tiredness and a sensation of numbness on the right side of the face and in the right arm and leg. Immediately afterward she discovered that she could not move her right arm or leg. Upon endeavoring to call her husband from an adjoining room, she found that she was unable to talk plainly. The author saw the patient within an hour following the attack. A rather superficial examination revealed a paralysis of the right side of the face and of the right arm and leg. The patient was very much upset, alternately crying and laughing. Still being of the opinion that the symptoms were probably due to hysteria an effort was made to quiet the

*Read at a meeting of the Chicago Gynecological Society, May 18, 1928.

patient with sedatives but with no avail. The following morning Dr. L. J. Pollock was called in consultation. He wrote concerning his findings and opinions in a letter as follows:

"When I examined Mrs. N. on September 15, 1926, I found a right-sided hemiplegia, with rather marked rigidity and involuntary movements of the right arm. The deep reflexes of the right side were markedly increased, and an ankle and knee clonus was elicited. There were Babinski, Oppenheim and Chaddock reflexes on the right side, and the abdominal reflexes were diminished on both sides. The visual fields grossly were normal and ophthalmoscopic examination failed to reveal any pathology. Although prior to my examination there had been very slight diminution of sensation on the right, when I examined her there was considerable loss of deep sensibility particularly in the right arm. A rather severe grade of transcortical aphasia was present. Considering the history of recurrent attacks of what might be interpreted as focal or cortical fits or of slight attacks such as one would get from a vascular spasm, it was necessary to exclude a possible cerebral neoplasm. The subsequent course with absence of any evidence of increased intracranial tension, headache, vomiting, or choked disc, slow pulse, etc., suffices to exclude a neoplasm. The negative serologic picture was sufficient to exclude the possibility of syphilis of the nervous system. One is, therefore, compelled to conclude that we are dealing with some type of vascular pathology, which may be either a thrombosis or an embolism. I was unable to determine any possible predisposing illness which would produce a thrombus. Emboli, although frequent after childbirth, occur during pregnancy as well. The numerous attacks speak more for thrombus than for embolus. They both result in a pneumonic infarct, giving about the same prognosis. I would expect a gradual improvement in motion and a diminution in spasticity and involuntary movements in the arm as well as complete recovery of the leg and speech."

The patient was sent to the Evanston Hospital. X-ray examinations of the head revealed no evidence of brain tumor or increased intracranial pressure. Spinal puncture revealed a negative spinal fluid, Wassermann tests on spinal fluid and blood were negative. Blood counts and urine were negative, and temperature was normal.

The treatment consisted entirely of complete rest in bed. Speech improved and there was a slight return of movement in the arm and leg. On October 14 labor was induced by routine methods, and a normal eight hour multiparous labor and spontaneous delivery with a normal living child resulted. After two weeks, passive motion and gentle massage were instituted. The patient left the hospital on December 8, 1926, eleven weeks after her hemiplegic attack and seven weeks after delivery. She was able to walk and to use her arm and leg fairly well. Improvement was most evident in her speech, which was practically normal. Physiotherapy treatment was continued for one month when the patient left the city. Following an examination March 2, 1928, Dr. Pollock wrote,

"I re-examined Mrs. N. on March 2. She shows very remarkable improvement. At the present time she shows a right hemiparesis which is observed in her gait and which is characterized by slight rigidity of the right leg and in slowness and some clumsiness of movements of this leg and in slight incoordination and weakness of the right upper extremity. A considerable degree of intentional hypertonia is seen in the upper extremity, wherein after flexing the fingers the intended extension is interfered with by a persisting flexor contracture. The deep reflexes of the right side are increased as compared to the left. A right ankle clonus and knee clonus are found. The superficial abdominal reflexes are diminished on the right side, and a Babinski is present. There was no objective loss of sensation and no astereognosis.

The paraplegia had practically disappeared but occasionally some hesitation in the selection of words was noted. Ophthalmic examination of the visual fields showed normal findings."

SUMMARY

A report of a case of hemiplegia during pregnancy and a reference to the literature revealing 42 previously reported cases is made. It is reassuring to the obstetrician to know that this condition in no way complicated labor in any instance and that a large percentage of the patients recovered completely from the hemiplegia.

BIBLIOGRAPHY

- Ahlfeld, F.*: Arch. f. Gynäk. 11: 584, 1877. *Barbour, A. H. F.*: Edinburgh M. J. 1092, 1895. *Bennett, A. H.*: Brit. M. J. 261, Feb., 1881. *Bernard, H.*: Bull. Soc. d'obst. de Paris 296, 1898. *Churchill, Fleetwood*: Irish. J. M. 257, May, 1854. *Cook, F.*: Proc. Roy. Soc. Med. Lond. 16: Clin. Section, 1922. *Craik, Robert*: Lancet 2: 888, Sept. 1899. *Dreyfuss, G. L.*: Med. Klin. 539, Mar., 1914. *Duhot, E., and Paquet, A.*: Gaz. d. hôp. 93: 89, 1920. *Hossain, E. von*: Arch. f. Psychiat. 38: 730, 1904; 40: 445, 1905. *Lafon*: 1896. *LeClercq, G.*: Thèse de Lille, 1919. *Marks, L. H.*: Dominion Med. Month., Toronto 20: 256, 1903. *Matthews, A. A.*: Northwest Med. 15: 370, Nov., 1916. *Moser*: Arch. f. Psychiat. 66: 720, 1920. *Oliver, J.*: M. Press 66: 53, 1898. *Rosenfeld*: Ztschr. f. Med. Wehnschr., 1702, 1908. *Talley, J. E.*: M. Clinics North America 8: 899, Nov., 1924. *Thomas, W. R.*: Brit. M. J. 886, Dec., 1877.

636 CHURCH STREET.