CHOREA GRAVIDARUM

A Case Report

by

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Chorea Gravidarum is an uncommon complication of pregnancy. Its incidence is on the decline in modern times. Its rarity justifies recording each case, and, this fact prompted the authors to report a case and to review briefly the current medical opinion on the subject.

Case History

A 20-year-old primipara was admitted at N.W.M. Hospital, on 21-8-64, at almost full-term pregnancy. Her complaints were involuntary movements of all extremities for 5 days. On admission the patient was drowsy and unable to give an account of herself. Except for the involuntary movements of the extremities for 5 days, no specific history was available. There was no history of fever, fits or unconsciousness. The past history revealed an attack of rheumatic fever, followed by similar involuntary movements sometime in childhood. During her antenatal period, she was perfectly well. On examination, the patient was of average build with mild pallor. The blood pressure was 110/70 mm. of Hg., the pulse 110/minute, and the temperature 98°F. The movements were involuntary, jerky, purposeless, non-repetitive, involving hands, shoulder, feet and face. The central nervous, cardiovascular and respiratory systems were normal. The uterus was 36 weeks' size, with breech presentation. Foetal heart sounds were 140 per minute. The patient was not in labour. Vaginal examination revealed a ripe cervix. Routine investigations showed moderate degree of anaemia. The diagnosis of chorea gravidarum was evident.

In spite of 48 hours of sedation with largactil, luminal and paraldehyde the patient's movements worsened. She continued to be restless and became roudy. A decision to terminate pregnancy was then taken and a lower segment caesarean section was done under general anaesthesia. A female baby, 5 lbs. in weight, was born.

Post-operatively, the patient continued to have involuntary movements and was restless and rowdy till the 15th day when these subsided abruptly. During this time barbiturates, chlorpromazine and paraldehyde were freely used with little benefit. The patient ran continuous high temperature from the second post-operative day. The cause of fever was not ascertained and various antibiotics were given, one after another, in the hope of controlling infection which seemed the most likely cause of pyrexia. Aspirin 20 gr. a day and prednisolone were given in addition, for several days without response. On the 15th post-operative day, the temperature touched normal and with it the choreic movements stopped too. The patient improved rapidly

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thereafter. During this period, patient could take little by mouth and feeds were supplied through intragastric drip and intravenous fluids. The patient was discharged on the 25th day in good condition.

Discussion and Review of Current Literature

The incidence of chorea gravidarum reported in literature varies from 1 in 2275 to 1 in 3500 pregnancies (Wilson and Preece 1932). In the last 10 years, only 3 cases of chorea gravidarum were noted at Nowrosjee Wadia Maternity Hospital where, during the same period, approximately 98200 pregnancies were treated. It is very probable that cases of chorea occuring in early pregnancy were admitted under the physician's care and having subsided were referred to the obstetrician. A number of such cases may have been omitted from the record of Nowrosjee Wadia Maternity Hospital and this fact may explain the extreme rarity of chorea gravidarum at the above hospital.

Chorea gravidarum usually occurs in young primiparae being uncommon after the age of 30 years. About 60% of women, affected by chorea gravidarum, have suffered from chorea or rheumatic fever in childhood and clinically rheumatic heart disease is present in one-third of them. The case reported here had the above characteristic features. Chorea gravidarum may recur in successive pregnancies and it may clear up rapidly after delivery. Illegitimacy rate is 17.2% in Wilson's series.

As a rule chorea begins early in pregnancy, about half the attacks are initiated in the first trimester, a third in the second and a sixth in the third trimester, and sometimes even in the puerperium. Once the disorder has started, it usually continues throughout pregnancy being modified but not abolished by treatment, but stops after delivery and almost always with termination of pregnancy. The earlier in pregnancy the disease starts, the milder it is. An onset late in pregnancy seems to herald a severe attack but in some mild cases an exacerbation may occur during labour or just before. In the present case, chorea gravidarum was initiated in the 36th week and was of severe form. Apart from constant movements, the patient was almost violent and sleepless, and there were signs of physical exhaustion and mental confusion. The chorea remained unabated for days even after termination of pregnancy.

Various views have been forwarded as to the cansation of chorea. Hocquert (1888) thought it was a hysterical manifestation. Shaw (1908) considered it to be a rheumatic manifestation influenced by toxaemia of pregnancy. Toxaemia caused an instability of nervous system which brought it down to childhood level. Sicard (1921) believed it was an epidemic form of encephalitis. Weigner (1937) thought it to be a symptom-complex which may be precipitated by a variety of factors such as infections, toxic or psychogenic factors. Drazoncic (1937) felt that chorea is allergic in nature. Allergic factor might be a protein stemming from the foetus and hence he used peptone as a desensitising agent. Kobrinsky (1944) was of opinion that toxic factors may play

a part in a proportion of these patients. Ruch (1944) considered that there was strong element of neurosis in chorea gravidarum.

Following tests may suggest presence of chorea.

1. Inability to grip the hand — spasmodic contractions are present instead of a sustained contraction.

2. Pronator sign — raising the arms above the head results in pronation of forearm so that backs of hands are in contact.

3. When asked to smile, choreic patient assumes a grin followed rapidly by a fearful or expressionless attitude.

4. Extension of the arms with hands and fingers outstretched may result in flexion of wrists and hyperextension of metacarpophalangeal joints resulting in dishing of the hand (choreic hand).

Pregnancy and labour are not affected by chorea except in most severe cases in which abortion, premature labour or intra-uterine death of the foetus occur. In the milder cases, with proper treatment recovery often takes place before delivery. In more severe cases the attack may continue till delivery and gradually cease after it even without treatment, and complete recovery has usually taken place in 2-3 weeks. Sometimes movements take several months before they completely disappear. During labour movements are often much aggravated so that control is difficult (Ruch).

If a choreic patient becomes pregnant prognosis is not necessarily serious, whereas if the chorea appears for the first time after conception, it forbodes a grave prognosis.

In the previous two cases from Nowrosjee Wadia Maternity Hospital the affection with chorea was mild and during the first half of pregnancy. After proper sedation both the cases recovered and went to term, having normal deliveries while in the present case, chorea manifested at the 36th week.

Termination of pregnancy in this patient was indicated as the patient failed to respond to reasonable medical treatment. A caesarean section was done as it was believed that the violent nature of the patient's state would not have permitted her cooperation during vaginal delivery. Moreover, the presentation being breech in a primipara, caesarean section was considered the better choice for the safety of foetus. The choreic movements did not stop after termination as was expected, but continued for a period of two weeks.

According to Browne, termination of pregnancy is seldom or ever indicated.

Hyperpyrexia in chorea gravidarum is frequently due to cardiac involvement and subacute bacterial endocarditis which follows. In the reported case all investigations and clinical examination failed to reveal this. In fact, no causative factor could be accounted for the hyperpyrexia. The pyrexia hence seemed rather unusual and unexplained.

Discussion has been raised regarding the future obstetric career of a young primipara who has bad or severe form of chorea gravidarum. There is no clear line of thought on this, but the opinion is not to prevent future child-bearing. Chorea may

or may not repeat; Chorea in successive pregnancies does not worsen with increased parity and does not necessarily have adverse effects on mother or foetus. The present case was thus allowed a discharge uninstructed from the above point of view.

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