March, 1918. Their average age was 21, and the result of my examination of them shows that at that age in this district miner's nystagmus is most uncommon. I only found 3 cases. There were, however, 142 cases of myopia. Of this number 36.6 per cent. had simple regular astigmatism below 2 D. The peculiar strain of the miner's occupation, therefore, may result in the development in the young miner of myopic astigmatism. This later becomes compound, and nystagmus often follows in more mature years. The sequence, therefore, in many cases of miner's nystagmus is, first, the severe muscular strain of coal hewing, development of myopic astigmatism, defective illumination, interference with normal fixation, and an ensuing nystagmus, varying in amount according to the general health and influence of intercurrent disease.

The influence of refractive errors on miner's nystagmus has been often discussed, but I do not think that the point that the miner's occupation is often in itself a cause of the initial refractive error has been put forward before. My experience with a large body of young miners has persuaded me that the beginning of the trouble may be accompanied, either as a causal or predisposing factor, by the development of a low degree of simple myopic astigmatism, which develops later into the compound variety, and that this astigmatism appears to follow the peculiar strain on the eye structures of the miner's occupation.

Summary.

To sum up briefly, the following are the effects of the various eye disabilities on the grading of army recruits. Such a grading will represent a corresponding handicap in civilian life.

Grade II.—High refractive errors, more commonly myopia. Corneal nebulae. Internal concomitant strabismus.

Grade III.—High myopia 50 per cent. of the cases. Corneal scars. Congenital cataracts and colobomas. Secondary and congenital nystagmus. Tobacco amblyopia. Various eye injuries.

Grade IV.—High progressive myopia. Chronic blepharitis (a very common disabling condition in this district). Recurrent iridocyclitis, cataract, glaucoma, retino-choroidal inflammation and degeneration, optic atrophies, trachoma. This last is a very rare occurrence in this part of the country.

In conclusion, it is, I think, evident that to a very large extent the problem of sight efficiency in a nation is intimately connected with, and runs parallel with, its general standard of sanitation and hygiene, and the healthy upbringing of its children.

A CASE OF PLACENTA PRAEVIA CENTRALIS, WITH SPONTANEOUS DELIVERY OF THE CHILD.*

BY

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PLACENTA PRAEVIA is sometimes, for purposes of description, divided into the classes of complete and incomplete, the term complete being confined to those cases in which the placental tissue covers the os internum when full dilatation occurs, and incomplete including all the other degrees of placenta praevia in which the implantation of the placenta implicates the lower uterine segment. Clinically such a description serves no very useful purpose, as it may be practically impossible to discover, at any rate before labour sets in, to what extent the placenta is abnormally attached to the lower pole of the uterus, and in practice one may meet with cases which are partial or marginal, or even lateral, in relation to the dilating os, and yet may be infinitely more dangerous to mother and child than those in which it is impossible to effect delivery without breaking through the placental barrier. The case which I describe is a notable instance of this. Yet there is no one who has had experience of such cases but knows that placenta praevia centralis usually gives rise to greater difficulty in effecting a satisfactory extraction than those varieties of the condition in which the presentation can be reached without much disturbance of the placenta.

With regard to the relative frequency of the different varieties of placenta praevia which are mentioned in textbooks a great diversity of opinion has been expressed. In my own experience of some 3,000 cases of midwifery in a period of about twenty-seven years the lesser degrees of placenta praevia have been met with once in every 350 cases, whereas complete placenta praevia was seen once in about 800 cases. Altogether I have had six. Yet such an authority as Pinard has stated that he never met with a case in which the placenta was uniformly adherent to the margins of the internal os, and that marginal is the most frequent variety. Something may be said for the locality—perhaps for the social standing of the patients also—in which the practitioner carries on his work. Notoriously the complication is rarely seen in primiparae, and it increases in frequency with the number of children borne, being probably greatest when the number is over seven. In districts where a family of three or four is the average it is likely that the incidence of placenta praevia will be considerably less than where larger families are the rule rather than the exception.

In reference to treatment, the general trend of obstetric opinion seems to be that on account of the dangers of unavoidable haemorrhage the pregnancy or labour, as the case may be, should be terminated as soon as possible after the condition has been diagnosed. At any time a massive haemorrhage may coincide with the beginning of labour, which leaves little hope for the mother or child unless promptly dealt with, so that the operation of election with some obstetricians is Caesarean section. And there can be little doubt that this operation when performed in a suitable institution by an experienced operator is the best in the interests of both mother and child. I have employed this method in one case with excellent results to both. I was far from the nearest medical assistance—some fifty miles. Labour had set in and the woman had had three convulsions previous to my arrival, but the child was still living.

In general practice, however, one finds an unwillingness among patients to undergo operation; yet if the case is seen before the onset of labour removal to a hospital should be strongly insisted upon. As a rule the patient and her friends ignore such advice, and the case goes on until an attack of haemorrhage is the signal for calling in the practitioner. By plugging the os and vagina thoroughly, and perhaps giving an injection of pituitrin, the bleeding may be arrested until the labour begins. There is frequently a malpresentation of the child, often a transverse, and there is little difficulty in piercing or pushing aside the intervening placenta and performing bipolar or internal version, as taught in the textbooks of obstetrics. The chief difficulty is the haemorrhage: it may be formidable and give rise to hurry and an anxiety to empty the uterus at all hazards. Hence the not inconsiderable danger of tearing the softened and highly vascular cervix, or even the lower uterine segment, if too great haste is used. Should the child present by the head I can now see no reason why the placenta should not be boldly pierced and the head delivered by high or medium forceps extraction, always provided one has the pluck to wait until the os has become fully dilated. By forcibly pressing over the opposite pole of the child through the mother's parietes the haemorrhage could be greatly controlled, and, if necessary, pituitrin might be administered to strengthen the pains. Needless to say, such a procedure premises a multipara with a normal pelvis and a foetus not too large for easy delivery. Where there exist doubts as to these two conditions I consider that version is the easiest and safest course in general practice. I have had no maternal mortality in my cases, and the infant mortality has been 50 per cent. The danger of puerperal infection is almost negligible, even in an ordinary bedroom, if a proper technique is employed. In the event of there being a desire for a living child Caesarean section, vaginal or abdominal, must be seriously considered. It is open to question how far this is justified in every case of complete placenta praevia.

The Case.

On the night of March 21st I was called to see a multipara, in her eighth pregnancy, on account of haemorrhage from the vulva. The confinement was expected in the last week in March or early in April. Up to then she had been in good health, and there was no history of trauma or anything likely to account for the condition. On

* Specimen shown and described at the meeting of the Yorkshire Branch of the British Medical Association at Leeds, April 6th, 1921.

examination by external palpation the foetus could be felt lying just clear of the pelvic brim, with the resistant plane of the back well in front of the left flank of the mother, and in my opinion it was probably a right occipito anterior. Per vaginam I found a thin trickle of blood issuing from the os, which was soft and boggy to the finger, while the canal was somewhat patulous. Through the os the characteristic stringy feel of placental tissue was unmistakable. As the labour had not begun I did not feel justified in trying to diagnose the precise variety of placenta praevia I was dealing with. In view of the dangerous condition of the patient, I strongly advised her friends to have her sent to a hospital; but in spite of my insistence the woman refused to leave home. I plugged the os and vagina tightly with antiseptic gauze and waited for some hours for labour pains to set in, but the uterus remained quiescent. She was kept in bed for a week, with daily renewal of the packing, and the haemorrhage had practically ceased by the end of the second day.

Late on March 27th I was called in great urgency: there had been a sudden gush of blood, and labour had immediately set in with extreme precipitancy, the pains following each other almost without interval, and she complained of great pain. I covered the distance to the house within a quarter of an hour, and, on my arrival, I was astonished and gratified to hear the cries of the newborn child as I entered the bedroom. There had been a fair amount of haemorrhage, but it was not excessive. The child was a healthy male, and weighed about six pounds. On examination the placenta was found in the uterus closely adherent all round the fully dilated os. The uterus contracted to the usual manipulations, but blood still flowed freely. With some difficulty the placenta was stripped from the uterine wall, and after a hot douche and an injection of pituitrin the discharge became normal. The after-history has been without incident.

An examination of the after-birth explains the manner of the child's delivery. Evidently the case was one of placenta praevia centralis, with a somewhat meagre covering of placental tissue near the insertion of the cord. Owing to the extreme pressure of the head directly upon the central part of the weakened placenta it had given way, and a rent was made sufficiently large to permit the passage of the child. So far as I know, such an occurrence is unique, and it suggests a method of dealing with cranial presentations that is direct and simple. In most of my cases of complete placenta praevia the part covering the os was membranous. The commonly accepted methods in such circumstances is to turn the child, and bring down a leg to act as a plug, making pressure over the fundus of the uterus to drive it well down into the pelvis. But in suitable circumstances—for instance, where there is a normal outlet, with a medium-sized child—even with a transverse presentation a cranial delivery might be essayed with the possibility of greater safety to mother and child. In version cases there is frequent delay with the after-coming head owing to the mass of the placenta acting as a partial barrier and the anxiety of the accoucheur to deliver before full dilatation in order to get a living baby. Often the child dies simply because of the prolonged second stage of labour, and I suggest that an imitation of Nature's rare method, as exemplified in my latest case, is worthy of serious consideration. However suitable Caesarean section may be for the institutional treatment of placenta praevia, it will be some considerable time before the general practitioner will be in a position to get his patients to consent to undergo the operation in all cases. And there is still a considerable body of opinion in general practice which inclines to less heroic measures.

The placenta was shown exactly as it appeared after delivery. The extent to which it was adherent was plainly evident by the ragged surface consequent upon its forcible detachment from the wall of the uterus. Otherwise it was perfectly normal in shape and size and in the insertion of the cord.

THE first appointments in the faculty of medicine of the proposed Columbia University Medical Centre, New York, are Dr. Allen O. Whipple, of the Presbyterian Hospital staff, as professor of surgery and director of the surgical service; Dr. Walter W. Palmer, Johns Hopkins University, as Bard professor of medicine and director of the medical service; and Dr. Herbert B. Wilcox, as Carpentier professor of diseases of children.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

ANTITETANUS SERUM: ANAPHYLAXIS.

A MAN, aged 24, who was wounded in August, 1918, is under the impression that he received several doses of antitetanus serum, two while at the casualty clearing station, and two more after reaching England. He was hit in the face severely, and underwent several plastic operations. The wounds are now healed.

On June 2nd, 1921, as the result of a motor-bicycle accident, he sustained multiple lacerated wounds of the right hand; the wounds were very dirty, with much crushing of tissue and grinding in of dirt from the road. I dressed him in the morning, and told him to return for a prophylactic dose of antitetanic serum. This was given (500 U.S.A. units) subcutaneously over the right rectus abdominis muscle at 2.45 p.m. After walking three-quarters of a mile the patient very suddenly felt faint and vision became dim; after another quarter of a mile he collapsed unconscious near his lodgings. He was carried home by the police, having been unconscious for about twenty minutes. When he arrived home he "felt very sleepy and exhausted"; at about 4 p.m. he vomited, and did so at intervals until 6 p.m. I had been out in the country and only saw the patient at 6.15 p.m. I found him very collapsed and breathing heavily, and pulseless. I carried him upstairs to his bed, the foot of which I raised and "blocked" on chairs. Hot-water bottles were applied in each axilla, and he was given a cup of hot tea with sugar, and a stimulant mixture was ordered. The condition rapidly improved, but later, when he attempted to get out of bed to pass water, he fainted again, falling heavily and cutting his forehead; when I saw him at 9 p.m. he had been lifted back to bed and his pulse was palpable, though very poor and of extremely low tension. There was an urticarial rash on the abdomen and chest. At 10.45 p.m., when he reached a nursing home in an ambulance, his condition was much improved; the pulse was 100. He had a fair night, and next day, though he felt limp, was otherwise normal. He was discharged from the nursing home on June 6th.

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Reports of Societies.

BIRTH CONTROL.

A MEETING of the London Association of the Medical Women's Federation was held on June 21st, with Mrs. FLEMING, M.D., in the chair. The subject for discussion—birth control—was opened by Dr. ELIZABETH WILKS, who strongly advocated State birth control as the only practical method of preventing the renewal of the race principally from the worst stocks. She pointed out that to-day the classes superior in intelligence and capacity practised individual birth control (not always from sufficiently justifiable motives), whereas the less intelligent and the degraded had neither the prudence nor the initiative to take any measures for limiting their offspring. Dr. Wilks thought that with a scheme of State birth control the unfit could be segregated and prevented from reproduction, but that this should be done in a manner more efficient than had been attempted by the Act for the care of the mentally deficient, which failed owing to the insufficient number of homes for maintaining defectives. On the other hand, by such means as changes in the marriage and divorce laws an increased birth rate among the fit should be indirectly promoted.

Mrs. SCHARLIEB stated that in over forty years' experience she had found that artificial limitation of birth damaged a woman's nervous system. The thwarting of any natural process eventually caused damage. Limitation of the family was not necessary—even in the poorest classes—in the interests of the wife. It removed the fear of consequences from the husband, and hence encouraged too frequent sexual intercourse. Mankind was already oversexed, she considered, and unbridled sex passions were