AN ANALYTICAL REVIEW OF A SERIES OF CASES OF INSANITY WITH PREGNANCY.

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It has generally been considered by obstetricians and psychiatrists that the insanity of pregnancy, in common with other forms of insanity associated with the reproductive function, offers a favourable prognosis from the point of view of complete mental recovery of the mother. This standard view is to be found in most text-books on midwifery and mental diseases.

I have recently had the mortification of seeing a small number of such cases failing to fulfil the favourable prognosis that I had held out, and this disappointment impelled me to make a detailed inquiry into all the cases of insanity with pregnancy which have been received into, and treated at Rainhill Mental Hospital during the last fifty years.

Such has been the salutary effect of this research that at this very early stage I can state two salient conclusions: firstly, that the prognosis is not so good as is commonly taught and supposed; and secondly, that the condition as a fully-fledged psychosis, requiring institutional care and treatment, is comparatively rare. During the years 1883–1933, 97 pregnant women were admitted to this mental hospital. This number represents a very small percentage of the total number of admissions of all kinds and types of mental disorders. It constitutes by far the smallest group of the psychoses associated with reproduction, and in our experience accounts for less than 10% of this comprehensive group.

To avoid confusion, it is necessary to draw attention to the fact that this investigation is concerned solely with cases of insanity with pregnancy, and takes no account whatever of any of the puerperal and lactational cases.

I shall now give the outcome of the 97 cases in tabular form and a description of the main features of the cases from the obstetrical and mental aspects with comments.

Ætiological Factors.

Careful search has been made in the clinical records to ascertain to what extent insane heredity played a rôle in the ætiology, but only in 17 cases had it been elicited and recorded in the history that there was a psychopathic inheritance. The difficulty of obtaining an accurate and truthful history is well recognized, and it is highly probable that the above figure would be much larger if the details of family history were more fully disclosed. Of these 17 cases, it may be of some interest and significance that only 6 recovered.

https://doi.org/10.1192/bjp.80.328.58 Published online by Cambridge University Press

TABLE I.—*Analysis of Results of 97 Cases.*

1.	Recovered in the hospital and discharged		31	35%
	Discharged recovered before delivery		3	
2.	Discharged to the care of friends		4	
	Discharged relieved		5	
3.	Transferred to other institutions, not recovered		9	
4.	Died in the institution :			
	(*a*) Within a few weeks of delivery	9		
	(*b*) At much later periods	24		
		—	33	
5.	Still resident in the institution at the time of inquiry		12	

The figures with regard to illegitimacy, parity and age are given in Table II.

TABLE II.—*Ætiological Factors.*

1.	Married	82 cases	= 84%	
	Single	15 ,,	= 16%	
2.	Multiparæ	69 ,,	= 70%	
	Primiparæ	22 ,,	= 23%	
	Not stated	6 ,,		
3.	*Age of patients :*			
	Under 20 years		1	
	Between 20–25 years		10	
	,, 25–30 ,,		27	
	,, 30–35 ,,		26	
	,, 35–40 ,,		26	
	Over 40 years		7	
4.	*Number of attacks of mental disorder :*			
	Having first attack		67 cases	
	,, second attack		18 ,,	
	,, third attack or more		6 ,,	
	Doubtful attacks		6 ,,	

There were two cases in this series that were admitted twice to this hospital suffering from a mental illness associated with pregnancy, one of which recovered from the mental attack after delivery.

Among other ætiological factors or conditions mentioned in the clinical records are intemperance (much more frequent in the earlier cases), unemployment, neglect, privation, seduction, bereavement (death of husband), extreme multiparity, marital unhappiness and infidelity. In over 25% of the cases I believe that some associated disease brought an extra strain to bear, and thus must be held responsible in some measure for the mental breakdown.

Chief among these (physical) conditions, stated in order of frequency, are epilepsy and general paralysis, whilst others are renal disease, cardiac disease, phthisis, pneumonia and chorea.

Description of the Obstetrical Features.

Cases have been received at all stages of the period of gestation, but by far the greater number have been well past mid-term on admission. One or two cases have been admitted in the very early days of pregnancy, when, however, it could hardly have been known that they were pregnant. Such cases, strictly speaking, do not come within the scope of this investigation, since pregnancy can scarcely be regarded as a causal factor. Over 75% of cases have been admitted at or beyond the seventh month, but this does not give any proper indication as to the length of time the mental symptoms had been in existence. In point of fact, owing to the incompleteness of the recorded history of these cases, it is not possible, except in a few cases, to state the approximate stage of pregnancy when the mental illness began. From the few cases in which this information is supplied, it would appear that the second half of pregnancy is the time fraught with risks of serious mental disturbance, and particularly the seventh or eighth month—a conclusion which seemingly concurs with the accepted views.

Only 15 cases were admitted in the first half of pregnancy, and, in most of these, I think that they were already mentally affected when they became pregnant. Despite the severity of the mental symptoms, premature spontaneous termination of pregnancy has been observed in very few instances, and in no cases is there any record of induction of premature labour or abortion. The number of stillbirths is 7, that of prematurely born, but living children, 9.

Character of Labour and Delivery.

The absence of serious obstetrical difficulties and complications is undoubtedly worthy of mention. Even in the case of elderly primiparæ, labour has, generally speaking, been easy and never unduly prolonged. In none of the recent cases is there any record of any instrumental delivery or any other skilled obstetrical operation. On the contrary, in many instances labour has been so sudden in onset and precipitate in character that the medical and nursing attendants have been taken unawares, and this has resulted in perinæal tears of varying degrees.

The Puerperium.

With very few exceptions this period has been singularly free from any infective processes, despite the fact that the management of this period has had to be frequently modified to suit the circumstances incidental to the mental disturbance. Puerperal sepsis occurred in 4 cases only, but of these 3 were

TABLE III.—*A List of the Obstetrical Difficulties or Abnormalities, Slight or Serious, Recorded.*

Precipitate labour	20 cases.
Eclampsia	1 case with recovery.
Prolapsed cord	1 ,,
Placenta prævia	1 case died before delivery from cardiac failure.
Post-partum hæmorrhage	1 case.
Adherent placenta	3 cases.
Breech presentation	2 ,,
Foot ,,	2 ,,

of mild degree, and only one of any gravity as measured by the temperature, rigors and foul lochia. It is interesting to add that all these four cases recovered mentally, and were discharged in course of time. There is a reference in two cases to delayed or incomplete involution.

DESCRIPTION OF THE MENTAL FEATURES.

In my efforts to analyse the mental characteristics of these cases I have met with certain difficulties. Firstly, in the earlier cases, that is from about 1883 to 1910, it was presumably the custom to describe invariably at this hospital all gestational cases as suffering from mania, despite the fact that many showed several degrees of mental confusion, and in some instances depression. Later it was the mode to apply the term "confusional insanity", although there is no doubt that, upon reflection, a not inconsiderable number were examples of the manic-depressive psychosis. In view of this discrepancy between the older and more modern viewpoints, I have deemed it expedient to disregard the original diagnosis, and to form my own opinion as to the probable type of mental disease from a careful study of the clinical accounts given in the notes of these cases. From this welter of information the conclusion emerges quite clearly that a large proportion of cases presented a serious mental disability, upon which the additional psychosis, if any, induced by the pregnant state was grafted. In other words, many were potential psychopaths, and would have become insane sooner or later quite independent of pregnancy. There were others in whom a psychosis was in process of development when they became pregnant, and possibly the extra strain of pregnancy accelerated the progress of the mental illness. In this series of cases, no less than 60%, upon investigation, were found to have had some such associated mental disability or predisposition, either manifest before pregnancy, or revealed by pregnancy. I have attempted to classify these unrecovered cases in Table IV (p. 62).

The great majority of cases in these groups assumed a chronic progressive course, but perhaps it is worthy of mention that five epileptics appeared to

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TABLE IV.

Class of mental disease.	Total in class.	Died.	Still here.	Transferred.	Discharged relieved.
1. Congenital mental defect	12	4	5	1	2
2. Epilepsy	13	6	1	1	5
3. General paralysis	7	5	—	—	2
4. Dementia præcox	12	5	3	2	2
5. Manic-depressive psychosis	11	7	2	2	—
6. Delusional psychoses	2	—	1	1	—
7. Alcoholic dementia	2	2	—	—	—
	59	29	12	7	11

have made a complete recovery from the temporary psychosis attributable to pregnancy.

THE RECOVERED CASES.

Having dealt with the unrecovered cases in this series, the way is now clear for a study of the prominent features of the cases that recovered. An examination of the general symptomatology demonstrated that there are three outstanding mental symptoms which appear, either singly or in combination, in all cases—confusion, depression and excitement. In a numerical analysis of 34 cases the confusional element was found to be the predominating feature in 23 cases, with excitement or depression taking the lead in the remainder. In several instances confusion was found allied to excitement on the one hand or to depression on the other. The differentiation of confusional insanity from manic-depressive disease during pregnancy has appeared to offer some difficulty, particularly since these leading symptoms, *e.g.*, confusion and excitement, are found in combination. The custom of diagnosing all the very early cases as mania has already been noted. One of the points used in this differential diagnosis was that a history of a previous attack favoured manic-depressive insanity, it being held that confusional states did not recur. There is no doubt, however, that in this series there are a few instances of a recurrent confusional state, and, incidentally, I may mention here that, in my opinion, confusional insanity can recur with a different ætiology. The problem of the correct diagnosis of these recoverable cases has exercised my mind for a considerable time. Whilst I am satisfied to regard most of these cases as either confusional (for want of a better title) or manic-depressive, there are a few with mixed symptoms which do not seem to fit suitably into either category. The main difficulty which confronts me here is to reconcile these cases with the usual confusional type, particularly as

far as the ætiology and symptoms are concerned. In the gestational cases in this series there would seem to be a complete absence of such important and determining factors in the ætiology as exhaustion or intoxication. Furthermore, I observed that there was scarcely any associated bodily disturbance of any severity, and very little reliable evidence of any severe degree of bodily intoxication. This state of affairs offers a sharp contrast to the usual confusional case with strong evidence of severe toxæmia and physical depletion. There was one case of eclampsia which recovered and three others with varying degrees of albuminuria; but in the cases, few admittedly, that come within my own recollection, the whole period of gestation has been remarkably free from any disconcerting physical symptoms. With the exception of the cases just mentioned, there is no record of any such serious bodily toxæmias as hyperemesis gravidarum or eclampsia. It may be that in certain predisposed individuals the toxic elements of pregnancy, instead of manifesting themselves in the usual manner on the liver and kidneys, have a special predilection for the cerebral cortex.

As with all recoverable diseases, it is of some advantage to be able to forecast, if only roughly, the duration of the disease. For this reason I have endeavoured to ascertain the length of time after delivery when the mental symptoms began to recede. With the exception of three cases which improved before delivery, most of these cases failed to show any mental improvement until the second month. It is said, with perfect truth, that for a time after delivery there is an acute exacerbation of the mental symptoms. In six of these cases improvement was deferred until six months had passed, but they then made a full recovery.

This length of time would seem to represent the limit of time after delivery for recovery to take place. In the average case, recovery may reasonably be expected about the third month following confinement, so that assuming the psychosis to begin at the seventh month of pregnancy, the total duration of the mental illness amounts to under six months.

There is one other matter of such topical interest as to justify a reference to it. Among the approved indications for the premature termination of pregnancy is that of insanity under certain circumstances. In this series of 97 cases it is of some significance that this serious measure was never resorted to in a single instance. With adequate facilities and suitable conditions of treatment, there must be very few cases of insanity which, either in the maternal or fœtal interest, require a premature or artificial termination of pregnancy.

I cannot conclude without acknowledgment of my indebtedness to Dr. E. F. Reeve, Medical Superintendent, for his invaluable advice, and also to certain members of the nursing staff for giving me useful information about some of the earlier cases in this series drawn from their own personal recollections.