SOME ASPECTS OF MIDWIFERY IN GREECE

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We recently received a report on Neonatal Mortality and Morbidity* through the British Council in Athens. We have appreciated the care with which it has been drawn up and also the useful conclusions it reaches, which may be said in general to be valid for all countries. However, certain details of disease and treatment differ from country to country; not only because of apparent differences of system and method of application, but also from deeper causes—racial, climatic, dietetic, and indigenous. These differences draw the attention of specialists to this or that morbid condition which, owing to local circumstances, is more often met with in one particular country where it can best be studied and forms a permanent and ever-present problem. We would like, therefore, to comment on some points in the British report, adding notes on our own experience in Greece which may be of interest and value.

Organization of Domiciliary Midwifery

We entirely agree with all the conclusions reached in the report under this heading. In Greece to-day this is an urgent problem.

Before the war we published an article¹ dealing with the way the maternity home "Marika Iliadi" (Fund Helena Venizelos) had tackled the question of domiciliary midwifery. A systematic investigation (including examination for syphilis) was carried out on all pregnant women attending the out-patient department to decide which of them could safely give birth to their children at home. The women selected for home delivery were multiparae whose previous deliveries and present pregnancies were absolutely normal. All primiparae and those of the multiparae showing either toxæmia or abnormal presentation and disproportion, as well as cases of multiple pregnancy and those where previous parturitions had required intervention, were booked to be delivered at the maternity home. During the period of antenatal care the home used to send a nurse to the house to see whether it was suitable for the birth. After this detailed selection, which was very similar to the recommendations in the report, the expectant mother was told to get in touch with the hospital as soon as the first symptoms of labour appeared.

To carry out the home delivery, a car was specially prepared with all the equipment necessary, including forceps. Five sets of this equipment were kept in the car, so that more than one birth could be attended on a single journey. The team of one experienced doctor and two midwives, together with the driver, were on duty for 24 hours. The car was attended on its journeys alternately by medical students and pupil midwives. The

total staff employed consisted of two doctors and ten midwives, and a maximum of five deliveries could be attended daily. If, during the birth, any complication arose, the car took the woman to hospital. Unfortunately the war deprived us of this valuable car, which was seized by the Germans, and since the war we have not been able to put the system into practice again.

Administration of Quinine during Pregnancy

On page 10 of the report it is stated that "the use of quinine to induce labour is now generally recognized as being harmful to the baby and there is much to be said for abandoning it." We cannot agree with this, as our experience and statistics have shown quite different results. We feel that in Greece our experience of the use of quinine is quite considerable, because, as is known, until the arrival of D.D.T. malaria was endemic and was fought as a rule only with quinine. Before the war practically every inhabitant suffered at least once from malaria and had treatment with quinine, and this naturally included pregnant women and women in labour. We can positively say, therefore, that the use of quinine in pregnancy or labour is quite without danger and has no harmful effect on the baby. We offer the following data in support of this theory.

(a) In 1903 Professor K. Louros,² basing his conclusions on clinical observations and pathological findings in the placentas of different women, proved that abortion and premature delivery and the "dead foetus" are due to the changes caused by the plasmodium on the placenta and not to the coincidental administration of quinine. On the contrary, the early use of quinine, often in large doses, for malaria in pregnant women prevented pathological changes in the placenta and ensured both the completion of pregnancy and the birth of a living and healthy baby. These conclusions were proved correct in 1925 by Professor K. Louros³ and other Greek obstetricians, so that in Greece to-day it is considered a mistake not to prescribe curative doses of quinine for expectant mothers suffering from malaria. We have recently seen it stated by Professor Maegraith,⁴ of Liverpool, that curative doses of the drug cannot cause abortion. We are not, of course, referring to toxic doses, which may possibly, together with the side-effects of the drug, cause an abortion; this could obviously follow an overdose of any other drug, too.

There is another point to which we wish to draw attention. Quinine undoubtedly increases the tone and sensitiveness of the uterine muscle and contracts the vessels. Thus it enables the uterus to respond more easily to the posterior pituitary and helps uterine contractions. But it makes the uterine muscles sensitive in this way only if the membranes have been ruptured, and in no way acts as an oxytocic beforehand. For this reason we do not in the least fear giving quinine during pregnancy, provided the doses remain within curative limits, and in this way we prevent the miscarriages and premature babies which would result in a large proportion of cases were the malaria left untreated. In addition, since we are convinced of its harmlessness to the baby, we administer quinine to tone up the uterine contractions in all cases of early or premature rupture of the membranes in case of inertia, with very satisfactory results to both the mother and the child.

(b) Our collaborator Kyriakis⁵ published the results of a procedure of ours in early rupture of the membranes for reviving uterine contractions by means of

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quinine, warmth, and "thymo-physin." By using this method we were able, in our clinic, to reduce neonatal mortality to 2.2% from Sztchlo's^{6,7} estimated 7.9%, and the accompanying mortality in the puerperium from 34.1% to 1.5%. These figures are based on statistics drawn up by Kyriakis on 661 cases of early rupture of the membranes with primary or secondary inertia. We feel that these figures speak for themselves on the harmlessness of quinine to the baby, since in these cases quinine was being administered in doses of 1.5 g. during labour until the complete re-establishment of the uterine contractions.

Influence of Diet on Toxaemia and Eclampsia

We know beforehand that our British colleagues, including Professor F. J. Browne, will not agree with us on this. We believe that toxaemia in pregnancy and eclampsia are the result of an as yet unknown anomaly of metabolism which has, no doubt, some connexion with the presence of the foetus and causes visceral vagotony, resulting either in the appearance of the symptoms of pre-eclampsia, due to the compensatory effort of the sympathetic nervous system, or in eclampsia itself, from insufficient compensation or slackness of the sympathetic, with fatal outcome and the appearance of the characteristic liver changes. This theory is based on previous research since verified by further observations and experience.⁸⁻¹¹

The importance of meteorological conditions, either in general¹² or in connexion with the manifestation of eclampsia, has been shown for the eclamptic crisis by N. Louros, collaborating with Panagiotou.¹³

The importance of food, however, in the development from simple toxaemia to genuine eclampsia is of still greater importance. In the war of 1914-18 during the blockade a considerable fall in the frequency of eclampsia was observed in Germany. Ruge,¹⁴ in Berlin, mentions a fall from 4.5% to 1.5%, with complete elimination of fatal cases of eclampsia during 1916. Likewise A. Mayer,^{15,16} in Tübingen, mentions the complete elimination of the disease, while previously its rate was 1.3%. Also Warnekros,¹⁷ in Berlin, noticed a fall from 4.5% to 1% and of the fatal cases therein from 20% to 8%. This considerable fall in Germany at that time occurred in areas which had especially suffered from an absence of food containing animal fat and protein, a fact that confirms Hammerschlag's¹⁸ earlier observation that in districts where women were fed with plenty of animal fat and protein eclampsia occurred in 1 in 286 cases, while in other areas, where such food was scarce, the rate fell to 1 in 1,800. Besides the earlier observation, according to which sodium chloride increases the likelihood of eclampsia, it has since been noticed that animal fat and protein have equally harmful effects.

These early observations, and subsequent research by N. Louros, have been confirmed by the following statistics and experience noted at our clinic,¹⁹ mainly during the period of the German occupation of Greece. According to these statistics, out of 7,248 births during the years of starvation, 1941-2, a considerable reduction was noticed of both toxaemias and pre-eclamptic symptoms, and also of eclampsia. A slight fall in the frequency of hypertension was observed and a considerable reduction of albuminuria from 4.76% to 2.06%. The frequency of oedema, on the other hand, increased

from 3.2% to 14.63%, due to the almost complete lack of protein during that time, which meant that oedema alone was not a useful symptom for differentiating the toxaemic or pre-eclamptic state. The frequency of the simultaneous appearance in the same pregnant woman of the three purely pre-eclamptic symptoms—hypertension, albuminuria, and oedema—shows a decrease from 2.79% to 1.8%. Finally, the rate of eclampsia shows per year the following characteristic fall: 1939, 0.31%; 1940, 0.17%; 1941, 0.25%; 1942, 0.12%.

At this point we must emphasize that in Greece the toxaemia, pre-eclampsia, and eclampsia rate has always been very low, and that the Greek people's average diet is mainly of vegetables (raw or dry), starch, and oil, and the amount of animal fat and protein is quite infinitesimal. According to our statistics, in 23,773 deliveries there was a frequency of 1 eclamptic in 395, or 0.21%.²⁰

Therefore, bearing this research in mind, we recommend to pregnant women less salt in their food, less animal fat and protein—even a complete absence of these substances toward the end of pregnancy or if the symptoms of pre-eclampsia appear. Instead we recommend carbohydrates, vegetable fat, and vegetable protein, or even a diet of vegetables, fruit, starch, oil, and sugar. By this means we succeed in practically every case in stopping eclampsia, if the woman comes in time and attends regularly for observation at the antenatal clinic.

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The Tuberculosis Educational Institute, composed of representatives from the Joint Tuberculosis Council and the National Association for the Prevention of Tuberculosis, organizes refresher courses for doctors, nurses, health visitors, social workers, and administrators, usually held at university centres. Intensive three-day clinical courses for doctors are held throughout the year at Cheshire Joint Sanatorium, Market Drayton; King George V Sanatorium, Godalming; and the Red Cross Sanatoria of Scotland (Tor-na-Dee and Glen o' Dee). A course for doctors to be held in Holland is planned for the spring of 1952. The programme, drawn up in collaboration with the Netherlands Tuberculosis Association, will include lectures, clinical demonstrations, visits to sanatoria and dispensaries, and a number of social events and sightseeing tours. This course can be held only if there are sufficient numbers, and those interested are asked to make preliminary application before the end of September to the Secretary, Tuberculosis Educational Institute, Tavistock House North, Tavistock Square, London, W.C.1, from whom details of the course may be obtained.