

REPORT ON THE FEMALE MEDICAL DEPARTMENT FOR THE YEAR 1940

J.E. Debono

Appendix MA

50 Years back

Extract from the Medical and Health Report for 1940

During the first half of the year an effort was made to keep down the number of patients as low as possible in order to have empty beds in the case of any emergency. By the end of June the number of patients in the Division at the Central Hospital had fallen to 20.

On the outbreak of the war with Italy, I took up my emergency post at the Blue Sisters' Hospital and my wards at the Central Hospital came under the direction of Dr.C. Zanghi. On the 1st July the patients of my wards were transferred to the Blue Sisters' Hospital under my immediate care, with the exception of cases of Typhoid and Dysentery which continued to be sent to the Hospital at Floriana. On the 21st September cases of Undulant and Typhoid fever were moved to the newly-opened St.Luke's Hospital and the Floriana Hospital was reserved for walking cases.

OUT-PATIENTS DEPARTMENT.

With the exception of the first fortnight of the war the out-patient department continued to function normally. During July and August it was held at the Blue Sisters' Hospital, but in September it was moved back to Floriana, which is more easily accessible.

The number of new out-patients seen and examined was 404. A report on the findings and suggestions as to treatment was sent to the remitting D.M.O. in every case. Only a few selected cases requiring special care were kept as out-patients. Owing to transport and other difficulties the Diabetes Clinic had to be closed down. Attendance at the Leishmaniasis Clinic became very desultory during July and August with the result that many babies under treatment relapsed.

In spite of the difficulties created by the war it was found possible to carry out a certain amount of research work and a number of observations were made which may be of value to other practitioners. Following your recommendation only the conclusions arrived at are recorded here. Detailed and documented reports have been prepared in the hope that they may be made available at some future date.

TYPHOID FEVER.

The number of cases admitted was 164 and there were 8 deaths giving a mortality of 5.5% which compares favourably with the best statistics. An equally satisfactory feature was the small number of serious complications and the good condition of the patients at the end of the febrile period. Although patients were kept for a minimum of three weeks after desferescence and were not discharged until the faeces were proved to be free from typhoid bacilli by bacteriological examination, the majority of cases were able to be up and about after a convalescence of 14 days. Cases of inanition and marked emaciation, so common with the traditional starvation treatment were conspicuous by their absence. These gratifying results must be attributed to the provision of a richer and more varied diet, especially rich in Vitamins C and B. Eggs were given from the first week and cereals were added in the second week together with minced chicken, bread and butter. The number of relapses was less than usual and we had no cases of perforation

VITAMIN C REQUIREMENTS IN TYPHOID FEVER.

At the beginning of the year an investigation was carried out to determine the amount of ascorbic acid necessary to ensure saturation in typhoid patients on an exclusive milk diet. A determined dose of ascorbic acid was given intravenously and the quantity passed in the urine was estimated colorimetrically by the indophenol method. The difference between the amount given and the quantity excreted represented the amount retained to produce saturation and was a measure of the pre-existing deficiency. It was found that mild and early cases of typhoid fever required an average of 4 oranges a day. Severe cases and especially cases which had been treated by an exclusive milk diet for some time required much more (average 300 mgs). The deficiency was particularly marked in toxic cases, especially in cases complicated by sordes and gingival bleeding.

Following this investigation ascorbic acid in the form of Redoxon tablets was given as

a routine measure in all severe cases and this was supplemented by intravenous injection in cases showing a haemorrhagic tendency.

The ascorbic acid (Redoxon) and the reagents for the investigation were kindly provided by Messrs. Roche through their local agent.

VITAMIN B DEFICIENCY IN TYPHOID FEVER.

Many of the symptoms usually associated with prolonged typhoid fever, such as the inanition, the loss of appetite, the foul tongue, the intestinal atony, the low muttering delirium suggest a deficiency of the Vitamin B complex. This is not surprising. An exclusive diet of boiled milk is not very rich in this vitamin and the infection makes increased demands. Unfortunately there is no laboratory method to prove this deficiency and one can only judge "ex juvantibus". The results which followed the addition of eggs to the diet from the start and the administration of high doses of Marmite seem to justify this hypothesis. The appetite improved, the tongue cleared up, the bowels became normal and the general condition improved visibly.

TREATMENT OF TYPHOID FEVER WITH SULPHAPYRIDINE.

In 10 cases sulphapyridine (Dagenan) was tried in addition to the dietetic measures outlined above. The results were disappointing even in cases complicated by Bronchopneumonia.

UNDULANT FEVER.

The number of cases treated was much smaller than usual. Eighty (80) cases were admitted and there were 8 deaths. The relatively high mortality as compared with that of typhoid fever is no doubt due to the fact that whereas all cases of typhoid fever are remitted to hospital only severe cases of undulant fever are admitted.

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TREATMENT OF UNDULANT FEVER WITH SULPHAPYRIDINE.

Sulphapyridine was tried in a series of 25 cases. Under the influence of full doses (2 to 1 gram every 4 hours) the temperature came down in almost all the cases, but it tended to rise again as soon as the dosage was reduced. In order to keep the temperature down high doses had to be given over a long period and in most cases the administration had to be stopped on account of the appearance of toxic symptoms. Vomiting was especially troublesome, and most patients felt so ill that they refused to continue with the treatment.

The effect of sulphapyridine in undulant fever is in no way comparable to its effect in pneumonia and it cannot be considered as a specific. In "malignant" cases however it may enable the patient to tide over a dangerous period. Very high doses must be given and on account of the vomiting, which these high doses induce, it is often necessary to give the drug by injection.

NERVOUS COMPLICATIONS OF UNDULANT FEVER.

Two cases of optic neuritis were observed. They were treated by repeated lumbar puncture and the administration of high doses of thiamine chloride (Vitamin B 1) Recovery was rapid and complete. If neglected complete blindness may ensue.

There were also a case of transverse myelitis and a case of subacute combined degeneration both following undulant fever. Both these cases recovered completely. The possibility of undulant fever as an etiological factor in diseases of the nervous system should be borne in mind.

PELLAGRA.

In 1939 two cases of suspected pellagra were seen. One was apparently due to chronic alcoholism and the other to a too restricted diet prescribed for a supposed cholecystitis. The diagnosis, in both cases, was made with hesitation as the disease had not been described as existing in Malta, at least in recent times. Both cases however reacted favourably to the inclusion of eggs and meat in their diet and the administration of Marmite and of yeast extract. In 1940 a number of typical cases were seen and I have no doubt that pellagra, both primary and secondary, occurs in Malta masquerading under the guise of chronic diarrhoea, dysentery, dyspepsia, general debility, Addison's disease, eczema, neurasthenia, etc.

Seven cases of pellagra were admitted as in-patients, while another eight were treated in the Out-Patients' Department.

In six patients the pellagra appeared to be primary i.e. due to a diet deficient in Vitamin B2 because the patients could not afford better food. In the others the pellagra was secondary to, or conditioned by, some other disease, which necessitated either a restriction of diet, or which prevented the absorption of Vitamin B2. In 4 cases the sequence of events seemed to be the following. Fear and anxiety had caused a nervous diarrhoea (in one case a mucomembranous colitis). The diet was cut down to an insufficient minimum. Pellagra developed with increase of the diarrhoea. This led to stricter dieting with aggravation of the Pellagra. On breaking the vicious circle and insisting on the patients taking a full diet the condition cleared up very quickly.

The commonest symptom met with was diarrhoea, the commonest sign a sore atrophic tongue. The characteristic dermatitis was seen in 5 cases, but in all the others careful interrogation elicited the fact that there had been an eruption during the summer months. In two cases there was definite dementia and the patients had to be transferred to the Hospital for Mental Diseases. Many of the others presented what are loosely called "neurasthenic traits", although it was difficult to be sure whether these were due to the pellagra or had pre-existed. Other symptoms were weakness, anorexia, burning sensations behind the sternum and across the abdomen, tingling sensations and paraesthesiae of the hands and feet. Finally most of the patients seem to develop a peculiar facies difficult to describe but easy to recognise. The face of these women pellagrins reminds one, very forcibly, of a Red Indian squaw.

In one case the pellagra was associated with "Ariboflavinosis" - and there was cheilitis, shark-skin over the cheeks and forehead and the characteristic alopecia associated with the deficiency of riboflavin.

With one exception, all the cases responded rapidly to the administration of Nicotinic acid coupled with the provision of a diet containing milk, eggs and meat. The exception was a boy aged three with a typical batswing eruption on the face and a high temperature. He died on the day of admission and the post mortem examination revealed oedema of the brain and a widespread atrophy of the intestinal mucosa.

MACROCYTIC ANAEMIA OF PREGNANCY.

Four cases suffering from the macrocytic anaemia of pregnancy were admitted during the months of September and October. Two of these were referred from the Maternity Hospital at Cini and two came to us directly. The anaemia was in all cases of extreme severity. One patient had a red count of 750,000 and a haemoglobin of 20%.

Blood transfusion was given as a preliminary measure in all cases, followed by massive doses of Hepatex-T and yeast extract. All the cases improved, but unfortunately one of them died of puerperal sepsis. The predominant symptoms in these cases were a sore tongue and a persistent colitis. No definite etiological factor could be incriminated. Three of the patients at least, were relatively well off and their diet was satisfactory, until the diarrhoea started and one article of food after another was eliminated.

CHILDREN.

The number of children treated in the F.M. Division under normal circumstances is relatively small as the majority are referred to the Children's War Memorial Hospital. On the outbreak of the war with Italy, however, this Hospital was taken over by the Government and I became responsible for the medical treatment of all children under five years. At first the children were housed in the wards of the War Memorial Hospital itself, but early in August they were moved to the ground floor of the adjacent Convent of the Sacred Heart for greater safety.

The number of children admitted up the end of December was 165. Of these 20 still remained at the end of the year, 83 were discharged cured, while 62 died. This high mortality must be attributed, in part at least, to the very bad condition in which many of them were brought in. Mothers are most reluctant to be parted from their babies even when it is obvious that they are unable to look after them. By the time that they are persuaded it is usually too late to do anything and they are brought to Hospital simply to die. The hopelessness of the condition of many of our patients has been a most depressing factor and D.M.O.s should be encouraged to send in cases as early as possible. In the case of very young babies the Government itself might be able to help by allowing the healthy mother to accompany the baby. The experience which mothers would acquire in this way should prove most valuable to them and perhaps to their neighbours.

INFANTILE DIARRHOEA.

By far the greatest number of admissions was for infantile diarrhoea and its consequences. Owing to the confusion and anxiety caused by the first air-raids many mothers gave up breast feeding at the most dangerous period of the year, switching over in most cases to sweetened condensed milk. The incidence of summer diarrhoea, high enough in previous years, rose to unprecedented levels and we were flooded by a large number of cases with which it was difficult to cope. To make matters worse many of the babies brought to us

from "shelters" were suffering from respiratory infections at the same time. The prevalent type of diarrhoea was of the carbohydrate fermentative type, characterised by frequent discharges of copious watery acid stools, by intense dehydration and by a high temperature. The fever is apparently due to dehydration and not to infection. In a series of cases where the temperature and the weight were charted every two hours, the rise in temperature corresponded exactly to the fall in weight caused by the loss of water. When saline was given the temperature fell at the same time that the weight increased. The hot weather complicates matters still further. As there is little or no water available for perspiration the thermoregulating mechanism is thrown out of order and unless adequate measures are undertaken the temperature rises to hyperpyrexial levels.

Acute cases of diarrhoea responded favourably to the following treatment. If dehydration was marked and the temperature was over 102 F. normal saline was given by hypodermic injection at the rate of 10 mls per lb. weight every 8 hours (Average 60 to 80 mls). The same treatment was adopted if there was persistent vomiting. In other cases water and salt were given by mouth in the form of half normal saline i.e. normal saline diluted with equal parts of boiled water. Contrary to expectation babies take this very readily. The addition of sodium chloride is of paramount importance. Water by itself is not retained by the tissues. After 12, to at most 24 hours, of this starvation

treatment milk was gradually added, while the saline was continued. At first Eledon was used, but the available supplies were soon exhausted. Goats' milk although diluted and acidified was found to be unsuitable and seemed to be definitely toxic. Our highest mortality was during the period when we were using goats' milk. Horlick's Malted Milk gave excellent results and when this was no longer available cows' milk diluted with an equal amount of water and acidified by the addition of two minims of lactic acid per ounce proved a satisfactory substitute. No medicines of any kind were used. Sugar was not added until the diarrhoea was completely cured. With this treatment babies improved rapidly and if they could be protected from intercurrent infections, recovery was rapid and uneventful.

Unfortunately the majority of the cases came to us weeks after the onset of the diarrhoea after prolonged periods of starvation, reduced to veritable bags of skin and bones. Our impression is that the starvation treatment of diarrhoea is being overdone and that quite a number of these babies die, not from the diarrhoea, but from starvation. Babies have very little surplus stores and deprivation of food for any length of time leads to certain irreversible changes in the organism from which recovery is almost impossible. Once the stage of marasmus is reached the prognosis becomes hopeless. These changes can only be avoided by resuming feeding, suitably modified of course, as soon as possible. We have never

had occasion to prolong starvation beyond the first 24 hours.

It is possible that marasmus and certain cases of chronic diarrhoea may be due to exhaustion of the Vitamin B reserves. In a number of cases we have obtained encouraging results by feeding marasmic babies on a mixture of Malted Milk and Marmite. The investigation is still proceeding.

GOATS' MILK ANAEMIA.

Reference has already been made to the unsuitability of goats' milk in the treatment of infantile diarrhoea. Goats' milk lacks one of the essential amino-acids "Cystine" and is insufficient by itself as the only food for babies under 6 months. Three cases of the so-called goats' milk anaemia were diagnosed between October and December. They were characterised by an earthy pallor, a flabby bloated appearance, and by persistent diarrhoea. The blood picture was of the typical macrocytic type. Immediate improvement followed the substitution of goats' milk by cows' milk, the injection of Hepatex-T and the addition of Marmite to the milk. No copper and no iron preparations were used and I cannot subscribe to the opinion that Goats' Milk Anaemia is due to a deficiency of copper.

In October cows' milk from the farm of the Sacred Heart Convent was substituted for goats' milk in the diet of all the children with very satisfactory results.

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