REPORT ON OPERATION
OF THE ICRC HOSPITAL IN THE YEMEN

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Report submitted
by the International Committee of the Red Cross

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REPORT ON THE ACTIVITIES OF THE ICRC HOSPITAL IN THE YEMEN

Three years ago, armed conflict broke out in the Yemen between the new Republican Government and the followers of the Imam el Badr, who had just been dethroned. The International Committee considered that it was its duty to intervene in favour of the many hapless victims of the forgotten war in this country which had hitherto been closed to outside influence and into which the Red Cross had never previously penetrated.

The ICRC delegates organized food distributions, mainly for the benefit of children. They visited and brought relief to the prisoners held by both sides.

But there were other victims besides. Although the wounded on Republican territory could be collected and cared for by the Egyptian army medical service, Royalist forces, for their part, did not have one single doctor to tend them nor medical supplies of any sort.

This was a task which the ICRC had to tackle. In November 1963, in the Uqhd desert near the Saudi frontier, it installed a fifty-bed field hospital. Considerable quantities of equipment had to be transported by air and then taken by lorry over tracks which would be a hard test for any vehicle. The hospital team consisted of thirty people, including doctors, surgeons, anaesthetists, nurses, mechanics, drivers, radio technicians, store-keepers, cook, etc.

The fifty beds were immediately occupied and hospital capacity had to be increased to one hundred beds.

Gradually the scope of this medical action was increased by the despatch of mobile medical teams to work in the interior of the country both among the Royalists and on territory controlled by the Republican Government from Sanaa.

After 20 months intense activity among a population which for the first time in its history has witnessed the benefit of modern medicine, it might well be useful to publish below some observations reflecting the work carried out by the ICRC doctors at Uqhd.
Review of the Uqhd hospital activities

From November 1963 to June 1965 the hospital policlinic gave 51,950 consultations, i.e. more than an average of 100 a day. During the same period nearly 11,000 cases were treated, i.e. an average of 5 consultations for each patient.

The number of patients examined each day varied from 40 to 130. Hospital inmates totalled 1,344 and the average length of stay was 25 days per patient. The 1,572 operations performed during this period gives an average of three operations per day, two out of three necessitating anaesthesia.

Each day 15 to 20 laboratory tests were carried out as well as ten X-rays.

The following data gives a more vivid picture of the situation.

Two doctors, two female nurses and two Yemeni nursing assistants trained at Uqhd, operated the policlinic from 7.30 a.m. to 11.30 a.m. and from 4 p.m. to 6 p.m. There were one or two interpreters available. It was a by no means easy task to question an average of 123 patients a day in Arabic, examining them (about one patient in five was a newcomer), treating them and - still in Arabic - making them understand how they should take their medicine.

Temperature was high in the tents at midday, particularly in summer when 104°F. was normal and the smells from the tents were far from pleasant.

During rush periods reinforcement had sometimes to be asked for. It was therefore not surprising that the policlinic staff sometimes came to table at midday in too pleasant a humour. It goes without saying that these doctors also had to look after the inmates of the ward tents attributed to them.

Surgical operations began at 8 o'clock in the morning. In view of the preparation they involved, work actually began at 7.15 a.m. or 7.30 a.m. With an average of 3 operations per day, the morning was generally fully occupied. In fact, operations not infrequently continued well after lunch time. The Clinobox proved to be invaluable with its complete range of carefully chosen instruments combined for multiple applications, permitting almost any type of operation.

In addition to the working of the operation theatre, the afternoons were devoted, if time permitted, to the application of plaster. Sterilization and cleaning of linen and
instruments was also attended to by the operating theatre team. It was also in the afternoon that dressings were changed in the surgical ward tents; this sometimes gave rise to psychological difficulties.

The Yemeni patient has not the slightest idea of what modern medicine is and believes that the more frequent the attention and prescriptions, the better is the treatment: each pill is a step towards cure, but two pills or an injection is preferable, whilst, of course, the best thing of all is an operation. Similarly with the changing of dressings. When the doctor tries to explain, in the few words of Arabic he has been at pains to master, that Ahmed's dressings must be changed twice a day because his scars are festering, whilst the properly stitched scar of an operation should if possible not be exposed, his explanation often meets with a smile which clearly says: "Sure! Ahmed is a favourite for some reason".

Similarly it has happened that a patient with fever complains that he has only been treated with pills and injections to no effect for several days and he demands an operation.

The fact that most of the wounded were brought in at night, to avoid being attacked from the air, added to the burden confronting the surgical team. As a consequence, night work was by no means unusual.

Work was hard in the other divisions also: the nurses in the tents maintained a constant struggle to have the most elementary rules of hygiene observed; the laboratory technician carried out tedious microscopical tests; the drivers had to see to the maintenance of the vehicles; the collection of wood and especially the water fatigue which necessitated a constant coming and going between the hospital and the well some thirteen miles away, across tracks which were a severe trial for the tank lorries.

Health of the population - illnesses treated

In reports by the various teams which operated the hospital in turn, different bases of patient classification were adopted, so that it is unfortunately difficult to give overall statistics covering the whole period. It is therefore preferable to consider some less comprehensive but carefully established statistics which are valid only for a limited period.

On the whole, the proportion of cases which involved surgery to those which involved internal medical treatment was two to one.
This ratio subsequently changed, the proportion of surgical cases increasing due to the greater number of war wounded arriving at the hospital.

Between November 19, 1963, and January 31, 1964, the first medical team treated 248 inmates and 1,220 out-patients. In 566 cases, i.e. 41 %, diagnosis required medical treatment. The remaining 53 % included illnesses, wounds and injuries requiring surgery as well as ailments which were not diagnosed. Some of the latter were insignificant, not requiring thorough medical examination, (headaches, etc.), or were of a kind for which facilities were inadequate. However, these cases were not refused treatment.

The diagnoses for the 566 cases mentioned above were as follows:

Helminthiasis was preponderant, accounting for 17 %, i.e. 5 % due to bilharziasis, 8.5 % to ascaridae and oxyurids, 0.9 % to ankylostomums, 2.6 % to tapeworms.

Leishmaniasis was in evidence with 1 case of kala-azar and 9 cases of oriental sore, i.e. accounting for 1.8 %. There were also 1.1 % cases of Madura foot, 0.4 % of yaws, only 1 case of leprosy and 1.5 % of scarlet fever.

The incidence of tuberculosis was 4.9 %; more than half of these cases were pulmonary and generally very serious.

2.6% acute diarrhoea (schigella, salmonella)
3 cases of sprue
2 gastric ulcers with haemorrhage
1.5% gastritis
1 case of hepatitis

Illnesses due to chills are as frequent as in Europe:

14.3% asthmatic bronchitis
1.6% pneumonia cases
1.6% angina
16.3% infection of the upper respiratory system.

Rheumatic disorders affected 1.2 % of these patients whilst the heart and valvular disorders comprised:

1.2% serious pyelitis
0.7% renal calculus and
1 case of testicle teratoma.
Skin diseases were common. Diagnosis was made difficult due to the different quality of the skin:

3% mycosis
1.6% eczema
0.5% basaliomis (3 cases)
1.4% boils and impetigo
1 albino
2 cases of syphilis
3 cases of blennorrhagia

Of 50 Kahn tests, 25 were positive although most showed no clinical symptoms. Of particular note were the positive reactions in the relatively rare Pian and Bejel cases and also those of malaria, viral and protozoa infections, illnesses with high globulin content, leprosy, etc.

There were many eye complaints:

5.3% trachoma
3.7% unilateral or bilateral blindness due to trachoma or accidents.

Of the nose, throat and ear cases:

2.6% were chronic inflammation of the middle ear
1.1% were acute inflammation of the middle ear, and
1 case was cancer of the salivary glands.

Neurologic cases accounted for 1.4% of the total:

1 hemiplegia
2 cases of polyradiculitis
2 cases of poliomyelitis
some acute psychoses

Others disorders:

1 case of diabetis
1 case of kwashiorkor
1 case of Hodgkin's disease
1 case of Sjögren syndrome

From the foregoing information we may make the following general observations:

1. Tuberculosis is wide-spread and many cases are in an advanced stage.
2. The incidence of helminthiasis is striking; the worst and most numerous cases are due to bilharzioses.

3. Malaria also gives much work. Every team has included fatal cases in its statistics.

4. The frequent cases of trachoma are particularly tragic; all too frequently they result in blindness.

**Surgery**

From February 15, 1964, to May 5, 1964, 206 operations were performed.

**Injuries treated were:**

- 6 fresh wounds
- 10 fresh wounds due to shrapnel from grenades
- 23 other extractions of shell shrapnel from festering wounds
- 12 curettages for festering bones due to old comminuted open fractures
- 3 re-examinations of wounds following lesion of nerves
- 2 Secondary sutures in old wounds
- 8 grafts on old wounds
- 3 tendon transplantations due to old lesions of arm nerves
- 1 subsidiary amputation of 4 fingers
- 3 conservative fractures
- 3 osteosyntheses (2 forearm plates and 1 attachment to the neck of the femur
- 1 plastic surgery of the lobe in a disfigured face
- 1 Crossfinger
- 2 arthrodeses of the elbow
- 1 artificial anus in a perforated pelvis case.

**Affections usually treated surgically:**

- 49 inguinal hernias
- 2 paronychiae
- 1 sarcoma in the upper part of the thigh
- 10 scar corrections in old burns of the hand
- 6 curettages of tubercular glands
- 7 madura foot cases requiring curettage or amputation
- 1 mycetoma of the thumb
- 1 mycetoma of the index finger
- 2 cases of ani prolapsus
- 1 semi-castration due to TB testicle
- 1 choledochoduodenostomy in a case of cancer of the pancreas head
2 cystes of the ovary
1 exploratory laparotomy for general echinococcus of the abdomen
2 exploratory biopsies
10 extractions of large thorns
14 minor operations

The foregoing shows that some patients were not, strictly speaking, war casualties.

From January 1 to 26, 1964, 61 of the 76 patients tended were admitted to hospital for wounds or affections due to the war. From July 21 to 27, 1964, the corresponding figures were only 20 out of 48.

Of a total of 206 operations performed between February 15 and May 5, 1964, 99 were for war wounds or their sequels, i.e. almost half.

The fact that for long periods more than half of the patients treated at the hospital were not, strictly speaking, war casualties, has given rise to a number of comments.

The statistics given above are scant. Any interpretation of them must allow for a number of facts:

Patients counted as war casualties are for the most part those who were wounded in fighting or in bombing raids. For instance, when a lorry loaded with soldiers is involved in an accident, the injured are not included as war casualties, though this might not be considered correct procedure since the transport of the soldiers would not have taken place in peace time. The same applies for many patients who attend with thorns up to 1 inch or more in length in their feet. The guerilla warfare raging in the Yemen involves their going among thorny vegetation and these wounds are by no means trifling matters. They quickly fester and become extremely painful. Thorns are generally considered to be the cause of an infection indigenous to tropical countries, called Madura foot. This chronic infection, which makes slow progress for months, destroys the bones and tissue of the foot and as it is not painful the victims often come too late for treatment to give effective cure; sometimes they come only when amputation is inevitable.

The last World War taught us that on all fronts the casualties due to illnesses were more numerous than those due to actual war wounds. This situation prevailed despite the existence of well organized medical services, whilst in the north of the Yemen soldiers are often infested with vermin, do not even know what latrines are and are lax even in observing the rules of hygiene laid down in the Koran.
When soldiers who live in mountainous regions, where malaria is unknown because of the altitude, contract this illness in the fighting zones where the disease is rife, it is a consequence of the war. The same applies to epidemics caused by the destruction of wells and the resultant pollution of water supplies, illnesses due to undernourishment, vitamin deficiencies, etc.

To give a complete picture therefore, statistics should include:

1. Injuries directly due to the war
2. Injuries related to the war
3. Lesions not connected with the war
4. Illnesses caused by or resulting from the war or its consequences
5. Illnesses not connected with the war.

Bearing the foregoing in mind, we might estimate that 70% of out-patients, 90% of hospital inmates and 80% of the patients operated are direct or indirect victims of the war.

Already before the war there was a State hospital in Sanaa with 4 or 5 Italian doctors. The hospital was available to the population, but the war has made this hospital an unlikely possibility for the inhabitants of the territory held by the Royalists.

The extra expense of providing treatment to patients not considered as war victims is insignificant. The major part of the expenditure was for the purchase of equipment ("clinobox", X-ray and laboratory equipment, vehicles, the radio stations, generators, tents, etc.) transport, salaries, supplies; all of which expenses were necessary irrespective of the number of patient treated.

There is one very significant aspect to the enterprise undertaken by the Red Cross in the Yemen. Indeed the outside world is making inroads from all sides into this country which previously had lived in isolation. Now that the world has thrust its influence into the country in the form of modern weapons of war, it is even more necessary that the constructive aspects of civilizations techniques - those of modern medicine in particular - should make their impact too. Of even greater importance than technical progress is the humanitarian ideal of the Red Cross which has become known in the Yemen thanks to the ICRC's medical action.