CHRONIC VIRAL HEPATITIS

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By Dr. Julius Ogeng'o

Two years after I had quiet routine hospital practice, Nancy called me at midnight. The phone rang so persistently that I suspected something was definitely wrong. When I finally picked the receivér, I immediately recognised Nancy's panicky voice.

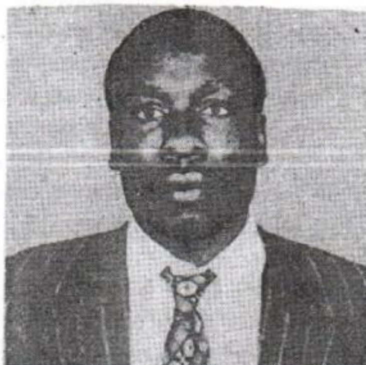
She narrated to me the story of Tom her husband whom I used to see with what appeared like viral hepatitis. I had discharged him from the clinic after he had appeared wèll and since then, he had been up and about going on with his normal duties though with slight fatigue and rather poor appetite. He could not stand fatty foods. This time, for three days running, he had got down with the disease and Nancy said that he was quite weak and showed abnormal violent behaviour.

As I had admission rights to any hospital in Nairobi, I woke up my neighbour, a consultant physician, to help me out and we rushed to the hospital where Nancy was calling from.

There are over 200 million infectious carriers of hepatitis B worldwide and another 250,000 new cases are diagnosed each year

On arrival, we found Nancy and the nurses attending to Tom, who by now, could not speak. He was sweating and his breath was foul. He was generally quite sick and obviously yellowish in the eyes, lips and tongue (jaundiced). His urine from the look of his light coloured pants, was yellow.

Dr. Malik, my friend the consultant physician, obtained the history patient's from Nancy, quickly examined him and ordered a series of



Dr. Ogeng'o: In liver failure, treatment hinges on correction of precipitating factors

blood tests including one for liver function, malaria and diabetes. We agreed on supportive treatment in the meantime until we got the results two hours later.

Then Dr. Malik whispered, "We are dealing with liver failure with a unpredictable outcome but let us see what we can do."

I knew Dr. Malik for short prescriptions, but this time the list of nursing procedures and medication was long. We dropped Nancy home and retired at 4.00 a.m.

The patient's recovery was slow but steady. Two weeks later, he left the hospital relatively much better. He now goes for follow-up examinations at the liver clinic in Kenyatta National Hospital.

In the previous issue, I discussed acute viral hepatitis but in this article, I will mainly address hepatitis B, D and Non A Non B. There are over 200 million infectious carriers of hepatitis B worldwide and another 250,000 new cases are diagnosed each year. Transmission, as discussed previously, is through blood or intimate sexual contact. About 10 pėr cent of those with acute hepatitis B infection go on to develop the chronic disease. Males are affected more than females and the incidence is highest in age group 25-29 years.

Hepatitis D is found worldwide. Seventy per cent of those with acute infection progress to chronicity and its co-existence with hepatitis B makes the latter worse. Fifty per cent of those with Non A and Non B hepatitis develop chronic disease.

There are two types of chronic viral hepatitis whose presentation is slightly different.

• Chronic Persistent Hepatitis

In this type, the symptoms are mild and comprise fatigue, poor appetite and intolerance to fatty foods. There is upper abdominal discomfort on the right side and there may be slight enlargement of the liver. Frequently, the patients may not identify the symptoms easily and they are discovered accidentally from blood tests.

• Chronic Active Hepatitis

When associated with hepatitis B, this form occurs more often in over 30 years-olds, and comes to attention when an episode of acute viral hepatitis fails to resolve. The individual may be asymptomatic or present with an enlarged liver, slight jaundice and joint pains that may be easily ignored. When not associated with hepatitis B, it is more severe and occurs predominantly in females.

The onset is slow, with fatigue, loss of appetite, jaundice fever, joint pain, nose bleeding and easy bruisability. Absence of menstrual periods (amenorrhoea) is common. In severe cases, blood vessels of the palms enlarge and become visible. Blood vessels in the walls of the oesophagus dilate (oesophageal varices) and may present with difficulties in swallowing. The spleen may enlarge and the abdomen swell with fluid..

It is important to note that though

features of liver dysfunction dominate, many associated conditions occur to emphasise the systematic nature of the disease. These include migratory affliction of large joints, a variety of skin rashes, chest pain due to the effect on the pleura, gastrointestinal disorders, kidney disease and even features of thyroid gland dysfunction. Complications of chronic hepatitis include portal hypertension, cancer of the liver, spontaneous bacterial peritonitis and liver failure.

Cancer of the liver is potentially lethal and kills all its victims within one year of diagnosis

In portal hypertension, the blood pressure in the liver vessels is so high that there is back flow. Such back pressure opens channels that can shut the blood to the rest of the circulation, thus by-passing the liver. Such channels open in the oesophagus making swallowing difficult and if severe, the vessels may burst making the patient to vomit blood. Others may open in the front of the abdominal wall around the navel; or in the lower rectum, causing haemorrhoids. Cancer of the liver, discussed in the past issues, is potentially lethal and kills all its victims within one year of diagnosis.

Spontaneous bacterial peritonitis is when bacteria infect the membrane that surrounds the abdominal organs in the absence of any evident portal entry for the bacteria. It presents with increasing distension of the abdomen with fluid, abdominal pain and intestinal disturbances.

In liver failure, which may be direct or follow liver cirrhosis, the liver cells are unable to perform their functions such that the overall functions of the liver are jeopardised severely enough to impair normal body functions.

When deterioration in liver function is so rapid and severe that the clinical syndrome follows within at most 4-8 weeks, it is called acute liver failure. Prior liver function may or may not have been normal.

In chronic hepatitis, failure of the liver function is slow and progressive. The features include jaundice, bleeding tendency, skin darkening, abnormal carbohydrate metabolism, enlargement of breasts in men, testicular atrophy, irregular menstrual periods and eventually amenorrhoea. There are tremors of the hands and the breath smells a little like faeces.

In the severest of the forms, some of the substance normally removed by the liver may reach the brain, and cause neuropsychiatric disorders. This is called hepatitic encephalopathy and may progress to coma.

The ancients recognised that precoma and coma could develop in patients with liver disease. In his work, Hippocrates described a patient with hepatitis who barked like a dog, could not be held and said things which could not be comprehended. He described him as "mad"

In 1860, Frerichs described patients with chronic liver damage who were seized with noisy excitement and passed into deep coma in which they died. This pattern of events, now referred to as hepatitic encephalopathy, may complicate all forms of liver disease. In most cases, if the changes persist untreated, they culminate into coma and death.

Hepatitis encephalopathy may occur spontaneously, but common pre-disposing factors include bleeding, infections, increased dietary proteins, major operations, drugs, especially those used in the treatment of heart failure and kidney disease, and sedatives.

The features could alternate with normal behaviour, causing confusion but are usually described in four stages of increased severity.

Complications

In stage I, the patient is euphoric, confused and generally behaves strangely. Convulsions may occur. In stage II, the inappropriate behaviour is much worse, the patient is totally confused, the tremors are worse and the drowsiness may deepen to precoma. In stage III, the patient gets frankly unconscious.

Other complications of the acute liver disease include kidney failure, generalised infection, fluid retention, respiratory failure, pancreatic and heart muscle damage.

Causes

There are, apart from viral hepatitis, a wide range of causes of chronic liver disease. These include:

- **Liver cirrhosis.** In this condition, functional liver cells are replaced by fibrous material. It has a wide range of causes, one being alcohol, particularly when taken at 4-5 bottles of beer per day for 5-15 years, and it is worse in genetically predisposed individuals.
- **Diseases** related to abdominal metabolism of fats, carbohydrates, minerals etc.
- **Drugs** such as those used to treat hypertension, cancer, infections, etc.
- **Obstructive diseases** of the bile duct system.
- **Congestion**, as due to obstruction of blood flow in the veins or persistent heart failure.
- **Malnutrition.**
- **Parasitic bacteria** and fungal infections.

No definite treatment exists for chronic viral hepatitis

When the liver finally fails, the presenting features could resemble infections like malaria, meningitis or other diseases of the kidney, lungs, brain or diabetes mellitus.

Unfortunately, no definite treatment exists for chronic viral

hepatitis but supportive measures can be instituted to facilitate recovery. Any patient who shows continued clinical deterioration following acute viral infection, especially once jaundice appears, will definitely need admission. Dangerous warning signs include increasing fatigue, persistent nausea and vomiting, and signs of encephalopathy.

In liver failure, treatment hinges on correction of precipitating factors correcting the resulting abnormalities and supporting liver cell function. In the equipped centres, exchange transfusion and/or liver transplantation provide hope to the ailing patients.

The outcome of chronic liver failure usually in patients with cirrhosis is much better than in acute severe hepatitis. Recovery even from deep coma can be anticipated in about 50 per cent of patients. This outcome is related to the extent of liver damage and/or function.

In conclusion, viral hepatitis is an important cause of chronic liver disease. In fact, if a patient who has had acute viral hepatitis develops features of chronic liver disease, he or she should be treated as having chronic viral hepatitis unless there is another obvious cause.

The presentation of chronic viral hepatitis mimics numerous other chronic liver diseases and are quite often generalised. It may be slow, mild and progressive but when extensive, it can cause liver failure either directly or through its complications.

Deaths may be due to liver cancer, liver failure, bleeding or a combination. Although no definite treatment is known, several hospital based supportive measures can be instituted in time to save life, at least for a while. However, a lot depends on prevention, early detection and hospital management.

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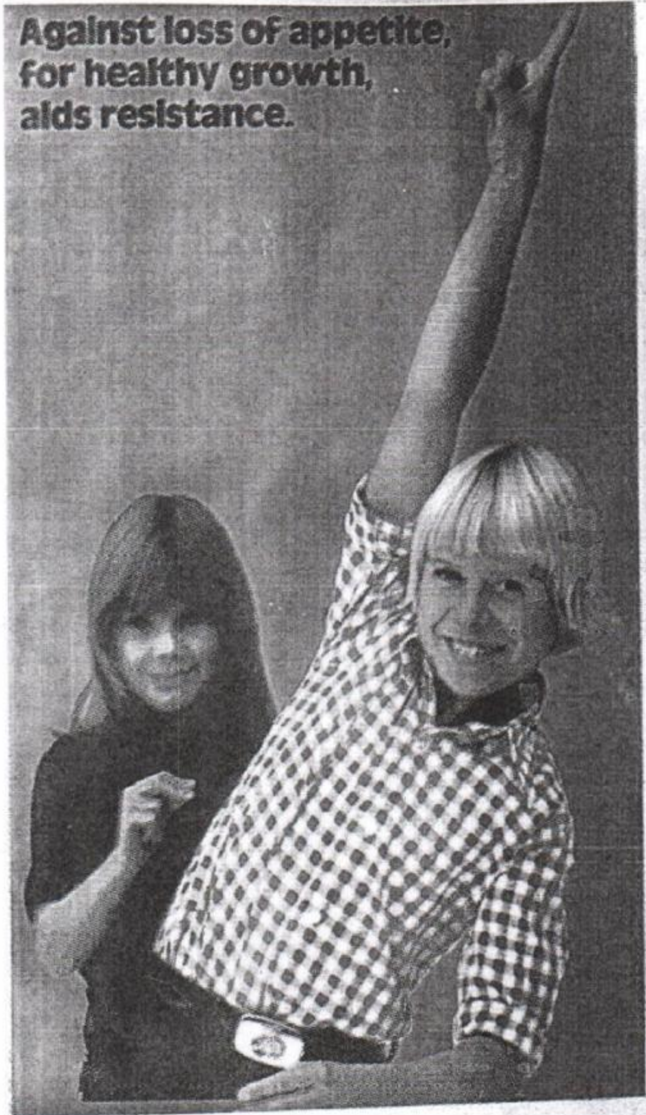

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