Fibrosis and Cirrhosis

What is Fibrosis and Cirrhosis?

Fibrosis

When liver cells are injured they die and scar tissue forms. Fibrosis is this scarring process of the liver.

<u>Compensated cirrohsis</u>

Cirrhosis is significant and often irreversible scarring of the liver. This happens when the liver is so scarred it shrinks and hardens.

During compensated cirrhosis your liver still has enough healthy cells to perform its functions and keep up with your bodies needs. You will likely feel only minor or no symptoms.

Some symptoms may include

- Poor Appettite
 - Fatigue
 - Weigh loss
- Adominal pain
- Enlarged breasts (for men)
 - Reddening of palms,
- Pominent red blood vessels that radiate from a centre to look like a spider web
- Enlarged superficial veins on the abdomen

Decompensated <u>cirrhosis</u>

This is advanced cirrhosis, when the remaining cells are not able to do the work of the liver that your body needs. You may notice symptoms and there are serious problems that may occur such as:

> - Hepatic Encephalopathy

- Asicetes and Oedema - Iaundice

- Variceal bleeding
- Enlarged spleen
- These are discussed in more detail below.

Causes of fibrosis and cirrhosis:

Anything that effects the liver and causes inflammation over a long period of time can cause fibrosis and eventually cirrhosis. These include:

- Chronic viral hepatitis B & C.
- Fatty liver disease.
- Autoimmune hepatitis (a genetic condition in which your own body attacks the liver as if it is a foreign object).
- Other genetic conditions.
- Excessive alcohol consumption.
- Some medications and exposure to poisons/toxins.
- Cryptogenic cirrhosis (cirrhosis of unknown origin).

What happens when you have cirrhosis?

There are two main reasons why cirrhosis is a problem. One is that scar tissues means there are less healthy liver cells and without enough your liver cannot do its job. Secondly, cirrhosis causes the liver to harden and shrink. This reduces blood flow through the liver which without, the liver cannot function properly. This reduced flow also causes a buildup of pressure and reduces toxins being filtered, causing them to move into the blood stream. The inability of blood to flow properly through the liver causes high pressure in the vein that brings blood to the liver. This is called <u>portal hypertension</u>.

Symptoms of decompensated cirrhosis:

Hepatic encephalopathy

When the liver cannot filter toxins they stay in the bloodstream and can go to the brain where they build up. This can cause changes to mood and concentration and cause you to be 'just not yourself'. Sometimes this makes you very sleepy and confused – if this is the case it is a sign of later encephalopathy and requires urgent medical care. Do not drive in this situation – your safety driving is impaired.

Jaundice

This is the yellowing of skin and eyes. It is due to a build-up of bilirubin that is usually filtered by the liver. When the liver is unable to filter properly it stays in the blood stream.

Ascites & Oedema

When fluid cannot be filtered through the liver is has to go elsewhere. When it backflows into the abdominal space, this is called ascites. When it causes swelling in the legs, this is oedema. Ascites causes your abdomen to become very visibly large and may make it uncomfortable to eat as well as cause a feeling of breathlessness. If this fluid becomes infected it is called <u>spontaneous bacterial peritonitis</u>. This is a dangerous medical emergency but can usually be treated with antibiotics. If you have ascites and have any new abdominal pain or fever you must go to hospital.

Variceal bleeding

Varices are abnormally dilated vessels that are not usually straight (like varicose veins). Because there is increased pressure in the liver and abdominal veins they can swell and burst (usually in stomach or oesophagus). Bleeding varices are a medical emergency. If you have cirrhosis and vomit blood or notice black tarry poo you must seek urgent medical help.

Enlarged spleen

Portal hypertension causes blood to back up into the spleen causing it to get bigger and negatively impact blood clotting.

Management of cirrhosis

If you are diagnosed with cirrhosis there are things you can do to improve your health, manage symptoms and help stop cirrhosis progressing.

Medication:

There are some medications you can take to help with symptoms.

<u>Beta- blockers</u>: These are medications to reduce blood pressure, which reduces the pressure in varices, making them less likely to bleed.

<u>Diuretics:</u> Help the kidneys get rid of excess salt and water in the body to manage ascites and oedema.

<u>Lactulose:</u> is a laxative which helps the body get rid of ammonia and other toxins to help with hepatic encephalopathy.

It is important to discuss any medications you are taking with your doctor

Hepatocellular carcinoma (liver cancer) surveillance:

Cirrhosis increases your risk of developing liver cancer. It is recommended that people living with cirrhosis have a blood test and liver ultrasound every six months to screen for liver cancer. If liver cancer is detected earlier treatment outcomes are often better.

Nutrition

Cirrhosis impacts your ability to metabolise and store energy. If you are living with cirrhosis it is important to get a referral to a specialist dietitian. Furthermore, it is important to consider reducing your salt intake. Salt will increase fluid build-up in the body and worsen symptoms such as ascites and oedema.

Finally, reducing your alcohol intake safely is important to prevent any further liver damage.

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