

# Fatigue in Liver Patients

includes:

A Patient's Journey - Fatigue in PBC

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Fatigue is a common and distressing problem that affects many patients with chronic liver disease. It is often severe and yet there are few evidence based treatments available. Fatigue is recognised as an important and significant symptom in a range of different chronic diseases including primary biliary cholangitis (PBC), non-alcoholic fatty liver disease (NAFLD), alcoholic liver disease and hepatitis C. It is, however, likely to also be found in other chronic liver diseases but to date research has not been performed to determine how common it is. Perhaps the disease where fatigue is best recognised is primary biliary cholangitis where its management is now included in the European Guidelines.

#### The nature of fatigue

For people with chronic liver disease who are experiencing fatigue it occurs frequently, happens on most days and varies in intensity and frequency. It ranges from heaviness through to a sensation of weariness and onto exhaustion. Here are some quotes from patients with chronic liver disease describing their experience of the symptom of fatigue.

Fatigue is the invisible enemy of the PBC patient. On the days when the fatigue is severe I can sleep the clock round for 24 hours. I do wake up every two to three hours but can easily roll over again and again. This is not good for my morale so I fight it and get up with the tiredness. My memory goes and I even come out with a name that does not belong to the person I am speaking to. More distressing is the fact that I cannot remember what I have said. I know that it is normal for a busy person to suddenly stop on their way to do a chore and forget what they were to do but it is quite an everyday problem for the PBC patient On a bad day my walking gets slower and my ankles simply stop moving and I have been told that my face physically changes colour to grey. My speech slows down too. Even a cold completely knocks me out and since we have been recommended in the past to only consume only half doses of paracetamol or ipobrufen it takes longer to clear. When I was working mornings at my desk after some hours I could not remember what I had done.

A patient with Primary Sclerosing Cholangitis describes

the feeling of fatigue comes across as a dull, 'groggy' feeling of not having the energy to do the smallest of tasks such as walking up stairs or even getting out of the chair. Symptoms include a heavy head or headache dry eyes with fuzzy vision and slowness of speech and thought. This makes me less likely to chat to a friend on the phone or deal with a business call as I lose words and cannot complete my sentence or just lose my train of thought. I forget what day it is, the name of a drug I take every day. At its worst my facial muscles give up and I find it difficult to change expression.

Walking upstairs or a gradient is problematic and at worst I would shuffle my feet like a very elderly person.

People don't believe I'm tired - apparently I look 'very well!' My husband understands but some think I may be putting it on. Feel so painfully tired and that my brain has 'gone to a pixellated screen'. But sleep never makes me feel physically any better, ever. I wake each morning completely tired out as if I have had no sleep. I remember feeling refreshed in the morning - a distant memory!

Tiredness actually hurts like a pain - it is not like normal tiredness, like when you have walked ten miles and cooked a meal for 12 afterwards. Fatigue feels like I've been poisoned, that there must be some antidote, vitamin I'm missing, mineral or food which 'will get me going' - but there isn't. I used to be Mrs Busy - and the envy of my friends, walking, gardening, decorating, cooking, doing volunteer work - non-stop - whizzing round the house like a dervish! I've always been slim. Still slim but weak – I feel lethargic and washed out on rising: I find it particularly hard to even wake up. It takes me an hour or two to be able to think really clearly, most days. The danger lies in my drive home from work destinations, often in mid or late afternoon – dropping asleep at the wheel.

The main problems for me are: difficulty getting up in the morning; some days unable to make the effort to do anything; my memory is very bad now. Life is very difficult on my bad days.

Due to the fatigue I cannot walk as fast as I could. I tell my brain to walk and think I am walking at a normal pace but find I can't keep up with anybody - not my husband nor my friend of the same age who does not have PBC. I cannot make decisions like I used to - I change my mind so many times and also I am becoming more forgetful and of course some days I just need to sit and do nothing.

Tired all the time; memory is terrible; severe itching, aching limbs; nausea, severe lack of concentration, fuzzy head, can't think straight.

The onset of fatigue can be very quick and unpredictable, e.g. early in the day in an enjoyable situation, e.g. coffee with friends and I suddenly feel drained. When very fatigued, friends detect slowness in my speech.

Research studies have shown that fatigue is such an important problem impacting upon the quality of life of those who are affected to a similar degree to that of pain. The degree to which it does impact upon quality of life has been shown in studies to be as bad as the effect that heart failure or chronic bronchitis has on a patient. It is most frequently an unpredictable symptom and therefore makes living life often very difficult. In many qualitative studies performed in patients with chronic liver disease, fatigue can be a physical symptom but also patients will describe a cognitive fatigue manifesting as an inability to think clearly, brain fog, difficulty concentrating or to be motivated to do anything.

# The impact of fatigue

Fatigue can affect every part of the life of someone with chronic liver disease, with effects upon physical function, ability to perform everyday tasks, work and leisure activities. Fatigue can mean that someone who is affected might struggle to go to school, to look after their family or hold down a job, it makes having a social life very difficult and makes doing the housework almost impossible. This of course has a significant impact upon family life and the relationships of people who have chronic liver disease and experience fatigue. Fatigue is frequently described as the most common reason why people with chronic liver disease find it difficult to work and often in the clinic people will tell us that it means that if they are working they can't find the energy to do other things, like maintain a social life. As a consequence, people with fatigue often experience

frustration, anger, anxiety, irritability and resentment.

## Fatigue in other chronic diseases

Fatigue is well recognised in a range of chronic diseases. Fatigue is the primary reason for 10% of all GP appointments and it is known to be the commonest reason why people will contact their GP. Conditions such as rheumatoid arthritis, multiple sclerosis and Parkinson's disease and a whole range of other chronic diseases are associated with fatigue. It is known to be the commonest reason why people who have sustained a stroke have difficulty re-habilitating after their stroke and in patients who are receiving chemotherapy for cancer, then fatigue is often cited as the commonest reason why they are unable to tolerate drugs. Interestingly in all the diseases that we have studied to date, including patients with chronic liver disease, the symptom of fatigue is not related to the severity of the underlying chronic disease. What that means is that patients with a chronic disease such as chronic liver disease can have very mild disease but have very severe and significant symptoms. It also means that when your doctor tells you that your liver blood tests are getting better and therefore you should feel better these two things do not necessarily equate.

# **Disease severity**

As we have discovered there is no relationship between the severity of chronic disease and the severity of fatigue. In primary biliary cholangitis, non-alcoholic fatty liver disease and hepatitis C there is a poor relationship between fatigue severity and severity of the disease and as a consequence this can often cause problems when trying to explain to a clinician how bad you feel when your liver blood tests might be seen to be improving. It is important that as a patient you understand that you can have mild liver disease and severe symptoms or severe liver disease and have mild symptoms. In the European Guidelines and a number of reviews that have been published we recommend that patients encourage their doctors to consider their disease in two ways, the first is to think about the liver disease and look at ways to make sure that the liver

disease does not progress but then also to consider the symptoms that are associated with having that liver disease.

# **Associated symptoms**

Patients who experience fatigue often describe a range of other symptoms, this can be memory problems, it can be problems of abnormal sleepiness or problems of dizziness and light-headedness, particularly when they stand up. Research in Newcastle suggests that there are different types of fatigue in patients with chronic liver disease. One of these types is predominantly associated with dizziness on standing up and in some people who are extremely affected, blackouts. The second type is associated with excessive sleepiness, particularly during the day. The third type is a combination of both one and two and the final type, type four, does not involve either sleepiness or dizziness and accounts for about 14% of cases of fatigue in PBC patients. We now are beginning to understand that for at least the first three types of fatigue there are treatments available which we hope will impact upon the severity of fatigue making people feel better and therefore able to function better. Clearly when considering the symptom of fatigue it is important to also make sure that obvious common causes of fatigue are excluded such as coeliac disease, anaemia, diabetes, hypo-thyroidism etc. In addition, we frequently find that patients with fatigue are taking medications that may be exacerbating this such as antianginals or anti-hypertensives. If you are particularly fatigued, and are taking these medications, it would certainly be worth seeing your GP to discuss with them whether or not this is an appropriate medication for you at this time in your life.

# Fatigue and depression

People frequently just say to us 'aren't patients with chronic liver disease not just simply depressed?'. There is now considerable evidence in the medical literature to confirm that this is not the case. A very elegant study performed in Holland, where formal psychiatric assessments were performed in patients with chronic

liver disease, confirmed that they were not patients who were primarily depressed but who had depressive symptoms as a consequence of the fatigue symptoms that they were experiencing. It is therefore very important that it must not be assumed that depression is the cause of their symptom because frequently it is not.

# Managing fatigue:

#### Medication

As described above, making sure that a secondary cause of fatigue has been ruled out is very important. Once this has occurred, the next step should be considering whether or not a fatigued patient with chronic liver disease has problems with dizziness, light headedness and sleepiness. There are many ways that we now look at to reverse these abnormalities.

#### **Exercise**

Graded exercise therapy has been shown to have a small benefit for fatigue in people with chronic fatigue syndrome and autoimmune diseases such as Systemic Lupus Erythematosis (SLE). However, in other diseases such as rheumatoid arthritis, these improvements have not been consistent. There have been no such trials in patients with chronic liver disease and it is therefore difficult to universally recommend graded exercise therapy to fatigued patients with chronic liver disease. What I generally say to patients that I see in the clinic is find what works for you, find a type of exercise at an intensity over a time frame that means that you are able to function subsequently and that you do not pay too dearly as a result of exercising i.e. that you do not have more bad days than good days as a consequence.

# **Education or self-management programmes**

There is some evidence from the fatigue literature in patients with chronic fatigue syndrome and autoimmune diseases that encouraging patients to have a good sleep hygiene to manage their activity levels and have oversight of their symptoms helps people manage their symptoms better.

# **Psychological interventions**

There is a small amount of evidence that interventions such as cognitive behavioural therapy help individuals to cope better with their symptoms and may be of some benefit in patients with chronic fatigue syndrome and rheumatoid arthritis. To date no studies have been done in patients with chronic liver disease and therefore it is difficult to recommend this approach until further trials specific to chronic liver disease are performed.

#### Conclusion

Fatigue is a significant and common problem in patients with chronic liver disease, it is debilitating and impacts significantly upon quality of life and therefore the ability of patients with chronic liver disease to sustain a fulfilling life. We are beginning to understand the severity and causes of fatigue in patients with chronic liver disease but there is much work to be done to help clinicians understand the impact of fatigue upon patients and to develop strategies to improve its management. Research is continuing with the long term aim of developing evidence based treatment algorithms.

# **Acknowledgement:**

Some of the information contained in this leaflet may also appear elsewhere. We are very grateful to Professor Julia Newton, Clinical Professor of Ageing and Medicine, Institute of Cellular Medicine, Newcastle University and Honorary Consultant Physician, Royal Victoria Infirmary for writing this LIVErNORTH publication for the benefit of liver patients.

Please now continue reading part 2 of this booklet, 'A Patient's Journey'

# A patient's journey, Fatigue in Primary Biliary Cirrhosis

(now know as Primary Biliary Cholangitis).

From the British Medical Journal, 22 October 2012.

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This patient developed severe fatigue as a result of primary biliary cirrhosis in her 40s. She describes her frustration with the reluctance of successive clinicians to recognise the severity of her fatigue and the damage it was doing:

I was diagnosed with the liver disease primary biliary cirrhosis (PBC) in January 1986, at 42 years old. Unusually, my general practitioner recognised it and immediately referred me to the Freeman Hospital in Newcastle. Many people take years to get a diagnosis, as doctors often do not recognise the symptoms or attribute them to other illnesses such as depression. At the hospital I was told that there was no treatment for my disease but that they would look after me. I was told that it affected about nine women for every one man, and there were more known cases in northeast England than anywhere else in the world. However, I knew no one else with this disease, I had never heard of it nor had any of my friends, and so it was a very lonely time.

By the time I was diagnosed, I knew I was different from my friends. I was always more tired than they were; less able to cope with a day out; ached all over, especially in my legs and arms; and could not lift heavy pans easily. I was used to being an active person: I played squash and badminton, did a lot of walking and gardening, did my own decorating, and had a good social life. As a single parent with two teenage children, this was a difficult time for me. I did not tell my children about my illness and tried to hide it from them. I used to take them to school then go home and sleep for several hours each day, setting the alarm for 2 pm so that I could pull myself together, iron a shirt and blouse for the next day for their school uniforms, and think about what I could make for an evening meal (most days it was a takeaway or something very simple).

As the years passed, I became more and more fatigued. I was always tired, but I could not sleep properly at night. My daughter went to university, and I am embarrassed to say it was a relief because I then only had my son at home for most of the year. Eventually, he also left home, and that made my life easier because they did not see how I was coping, and on my bad days (which by then outnumbered my good ones) I could stay in bed until lunchtime if necessary. Some days I managed to get up, shower, get dressed, and do something. Those were good days. Normal days were those when I got up eventually, had a shower by lunchtime, and then just sat and read or watched television for the rest of the day. On bad days I usually stayed in bed, although I would tend to get up around 4 pm and sit in my dressing gown until it was time to go back to bed. My social life deteriorated to the point where I rarely went out in the evenings, and during the day I did not like to plan ahead as I was never sure how much I would be able to manage. When friends visited I used to make a supreme effort to act normally and would put on a good show while they stayed with me, but when they left I would be so exhausted I would be tearful and I would take several days to recover.

"That can't be a problem: your blood tests are fine"

During this time I often mentioned the fatigue to the hospital doctors, who varied greatly in their attitude to it. Some were very sympathetic, although they couldn't really offer any treatment. Others obviously felt I should pull myself together. One suggested I try to take up squash again. Almost universally there

was a sense that, as my liver function tests were quite good, this could not really be a problem related to my liver disease. Eventually, David Jones became my consultant. He always believed in the fatigue, and, although there was still no treatment, just knowing that he took on board what I was saying was a great help and made me feel better.

In 1994 a group of liver patients set up a support group, LIVErNORTH, based at the Freeman Hospital. I was a founder member and joined the committee as honorary secretary. This brought me into contact with many other people with PBC and helped me, as it meant I no longer felt alone. Talking to others, it was apparent that most of us had the same problem with fatigue, and we also realised that we had problems with memory. We compared notes on how we coped—in reality we did not cope very well—and on our shared experiences with doctors who just didn't understand or accept fatigue as a problem. I felt I had "dumbed down" and no longer expected so much of myself. There were times when I would be in the middle of some housework and would just have to walk away and take to my bed, abandoning the ironing, vacuuming, or whatever. The ironing board would stand unused for days, the vacuum cleaner would remain in the middle of the room, and I would walk round it but would not have the energy to put it away. Because my brain was still working reasonably well, I knew I was not coping. At meetings we talked about how we no longer achieved what we thought we should—we certainly could not keep up with our "normal" friends. I walked with a group but eventually stopped as I was told, very nicely, that I was slowing them down too much: to be honest, it was a relief to be able to stop as it had become a nightmare for me.

The problem with fatigue is that it is hidden. I don't look different from other people: when I say I am tired they tell me how tired they are, and if I try to explain the difference they do not understand what I am talking about. When I was first diagnosed my GP told me that I would never get any sympathy as I

would always look reasonably well and my symptoms would have no impact on other people's understanding of my life. The fatigue that I and my fellow PBC patients contend with is mind numbing. You feel as if you are in a fog, you can hardly lift one foot in front of the other, everything is so difficult. You go shopping and then cannot unpack the groceries, so the frozen food defrosts and has to be thrown out. You plan a meal and forget to turn on the oven; if you do turn on the oven and cook the meat, you cannot manage to do the vegetables so it ends up being sandwiches. In 1999 I had a liver transplant as my liver had deteriorated to such a point that I was not able to function, and a transplant was the only option. While I am better than before my operation, I continue to feel tired, although it is not the same as the previous fatigue. Recently, PBC patients were asked if we would be prepared to consider participating in a trial of a drug that might improve our fatigue, but which could have side effects. My answer was immediate: I would consider any treatment that might improve my fatigue. When I discussed it with other PBC patients, they all had the same attitude. Everyone said they would consider any treatment that might offer a way out of this existence. We feel we are in a no man's land—on the outside looking in, or sometimes locked inside and cannot get out. We do not feel part of the normal population, and this is very sad. We would love to be the lively, energetic people we once were, and if there is anything that can make us feel that way, we will take it like a shot.

# The clinician's perspective

Fatigue is a common and debilitating symptom in chronic inflammatory disease that can affect all age groups and can impact enormously on quality of life. One of the problems frequently faced by patients who experience fatigue is a sense of disbelief by friends, family, and even healthcare professionals as to the nature and origins of the symptom that affects them so dramatically. This sense of lack of belief in those around them can contribute to the social isolation

exemplified by Tilly's description, and which patients are always prone to because of their lack of physical capability. In the UK, our group based in Newcastle has worked with the patient support group LIVErNorth for over a decade, and we have begun to change the perception of fatigue in one particular chronic disease, the autoimmune liver disease primary biliary cirrhosis (PBC). However, we continue to be surprised by the lack of appreciation of those both inside and outside our field as to the enormity of the implication that fatigue has for individuals who experience it.

PBC is a cholestatic autoimmune liver disease in which fatigue is severe enough to have a serious impact on the life quality of patients through loss of capacity to work, to undertake hobbies, and to lead a normal social life. Critically, fatigue is not associated with severity of underlying liver disease, nor does it seem to respond to therapy with ursodeoxycholic acid, an agent that slows progression of the disease. The lack of association with disease severity can lead all too often to a scenario where the doctor perceives PBC to be well controlled because of improved liver biochemistry, whereas the patient finds this apparently well controlled disease is still giving them life altering fatigue.

Equally critically, in PBC there is no evidence to suggest that fatigue is a result of depression or associated comorbidity, neither of which are seen at increased frequency in the disease. Despite this, there is a tendency for clinicians to make assumptions about the presence of depression simply because a patient is fatigued. This assumption can further challenge the patient-physician relationship and can lead to a pattern of clinical "buck passing" as the various clinicians involved in the management of these often complex cases argue that the fatigue is "not my problem" (although, of course, it always remains the patient's problem).

As our work on mechanisms of fatigue in PBC leads towards specific therapies (our group has shown cardiac, skeletal muscle, and a range of other biological associates of fatigue in PBC and is about to commence trials of therapy, delivered in an always supportive environment that seeks to help patients to understand their problem and to cope with its impacts) there is a new hope for fatigued PBC patients. The history of fatigue in PBC, the impact the symptom has on patients, and the approach taken by a frequently sceptical (but ultimately wrong) medical profession which in many cases increased rather than reduced that impact holds important lessons for other chronic inflammatory diseases where patients are still experiencing the issues outlined by Tilly.

Julia Newton, David Jones

This article was written in 2012, since then other medication has been introduced, we recommend that you speak to your Doctor about which medication is best for you.

The TEDx talk which Tilly gave at the University of Newcastle upon Tyne is certainly worth watching at:

https://www.youtube.com/watch?v=v1Ml1djOyB8.

Tilly sadly died in December 2015 after battling cancer, she was our Hon Secretary and a great ambassador for PBC patients, however, her legacy remains and we are sure you will find what she had to say helpful.

# Information Leaflets Available:

- 1. Liver Patient Support
- 2. Accommodation for patients & families
- 3. Autoimmune Hepatitis
- 4. Alcoholic Liver Disease
- Look After Your Liver
- 6. Primary Biliary Cholangitis (PBC)
- 7. Coping With Stress
- 8. Primary Liver Cancer
- 9. You and Your Consultant
- 10. Primary Sclerosing Cholangitis (PSC)
- 11. NAFLD Lifestyle Guide
- 11a. Non Alcoholic Steatohepatitis
- 12. Liver Disease
- 13. Skin Care for Liver Patients
- 14. Diet and Liver Disease
- 15. Hepatitis C
- 16. Travel Insurance for Liver Patients
- 17. Hepatitis E
- 18 Fatigue in Liver Patients & A Patient's Journey
- 19. Understanding Healthcare Tests
- 20. Liver Cirrhosis Self Management Toolkit\*
- 21. Exercise & Osteoporosis in Liver Patients
- 22. Hepatic Encephalopathy
- \* only from your doctor or healthcare professional

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