

# FROM A BLACK WIDOW SPIDER (LATRODECTUS) BITE TO HAEMODIALYSIS

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From 26 years of age, our 'hero' travelled throughout the world on account of his job as a truck driver. Later on he discovered the most beautiful parts of our globe as a tourist. He visited Africa and went on a giant round trip in Central America, reaching countries such as Mexico, Guatemala and Honduras.

His ordeal started in 2008... He was unloading his cargo originating from Honduras at a timber-yard in Sweden, when a spider crawling out of the log container, which subsequently turned out to be a subspecies

of the black widow spider, bit him on the left ankle. Then and there he did not attach any importance to this.

The black widow spider (*Latrodectus*) occurs in all regions of the world that have a warm climate. As a result of the climate change, these spiders are starting to become more and more numerous in Europe as well... The venom of the black widow spider is a neurotoxin, dangerous, but rarely fatal, to humans. The black widow spider has multiple subspecies whose bite can cause severe damage to the human body. Their 'murderous' nature is manifested already at a juvenile age: before leaving the nest, the offsprings try to kill one another. If the mother is hungry, she will eat some of her offspring. The black widow spider produces a strong neurotoxin called alpha-latrotoxin – this is responsible for the extremely severe pain developing after the bite. Research has demonstrated that this spider venom may have a key role in the therapy of Alzheimer's disease, cancer, pain, or even sexual problems.

Two weeks after the bite, our patient's ankle became swollen and painful. At that time he was in Dresden, Germany with his truck, and in the local hospital the site of the spider bite was cleaned and dressed. His complaints ceased. Another two weeks later the pain and swelling recurred, but this time already in a much more severe form. At the AKH (General Hospital) in Vienna, the city where he lived at the time, the bite site was cut open. Then he took to the road again with his truck. Two months later in Rostock he again developed a pain in his leg, but this time it was already accompanied by swelling and oedema throughout the body.

Thorough examination at the AKH in Vienna demonstrated hepatic insufficiency secondary to hepatitis C virus (HCV) infection. As the treatments were unsuccessful, the patient was put on a liver transplant waiting list and soon, in 2010, he received a liver transplant. Three months later he acquired a cytomegalovirus (CMV) infection. He was placed on a waiting list again and in 2010 he received a second liver transplant because of HCV recurrence, recurrent cholangitis and deterioration of liver graft function.

During the operation a posterior-inferior acute myocardial infarction (AMI) occurred, because of which stenting was performed on the patient immediately, right on the operating table. He received 3x2 mg Tacrolimus as immunosuppressive agent... After the operation, in January 2013 he suffered a gastric haemorrhage (gastric artery embolisation). In 2013, back home in Hungary, he received treatment at the Department and Clinic of Transplantation of Semmelweis University in Budapest for vomiting, diarrhoea and fever. His anaemia was corrected by transfusion and his hypertension by antihypertensive drugs.



In January 2014 he was taken by the National Ambulance Service to the Nephrology Department of Tatabánya Hospital because of hypertension, severe headache, and vomiting. Severe hypertonia, gastritis and progressive kidney damage were observed. End-stage kidney disease (CKD stage 5), attributed to diffuse renal lesions, nephrosis syndrome and HCV-associated membranous nephropathy, was diagnosed. After consultation with his attending physician, on 29 January 2014 haemodialysis (HD) treatment was started at the Clinic of Transplantation, and organization of the tests necessary for placing the patient on a kidney transplantation waiting list was started. On 13 November 2014 haemorrhoidectomy was performed because of bleeding haemorrhoids and anal adenoma causing complaints. Simultaneously, the patient is under continuous control at the Városmajor Cardiovascular Clinic of Semmelweis University.

At present the patient is 58 years old and is receiving haemodialysis therapy for 3 x 5 hours weekly through a left forearm fistula. Our patient has unbroken spirits and maximally co-operates with the physicians and operating personnel. He arrives for each dialysis session cheerfully and in good spirits, encourages his fellow patients and educates them in the right direction. He is waiting, full of hope and trust, for the hopefully near moment when he receives a call on his telephone: **"You have a kidney transplant alert... "**