

Rheumatoid arthritis (RA) and ankylosing spondylitis (May 31, 2009)

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Case 1:

Patient is a 36 year old female, she was presented with swelling and pain of the joints which she has suffered for more than 10 years, the symptoms became more aggravated more than 1 year ago. She was diagnosed with RA. Patient had taken steroids and antipyretic and analgesic medication, and she tried several kinds of physiotherapy but had no results. Within the past year, with the development of the disease, more joints were affected, and she continually suffered from dizziness, weakness, ankylosis of the cervical vertebra, the joints in her fingers had fusiform malformation, swelling of the wrists. Patient had a very poor appetite because she had taken so many medications for such a long period. Her mental status is weak, and she felt soreness and swelling in her chest, pain in her back and shoulders, intermetacarpal joints, ankle joints, right elbow and knee joints. There is limitation to the movement in her joints. She had to wear trousers and quilted stockings even in the heat of summer. Patient's life is very painful.

After her admission, we gave the patient Mesenchymal Stem Cells (MSCs) implantations, 3 times, together with the treatment to improve her internal environment, adjust her immune system, accelerate the stem cells differentiation, etc. After treatment, the swelling in her fingers were alleviated greatly, and the soreness and swelling symptoms of the joints, along with her morning stiffness disappeared completely. Other symptoms improved greatly also. Now she can do daily housework and live her life normally.

Case 2:

Patient is a 35 year old male, he was presented with pain in the waist and legs and motor disturbance, which he has had for more than 10 years. He was diagnosed with ankylosing spondylitis. Patient suffered from spinal rigidity, pain and motor limitation. X-Rays indicated there are calcification changes and bamboo changes of the thoracic vertebra and lumbar vertebra. Patient took ibuprofen and prednisone for a long period of time and received acupuncture and physical therapy, but had no results. He had to resort to drinking alcohol to help with the pain. After admission to the hospital, the patient received treatment to improve his internal microenvironment, adjust his immune system functioning, and was given Mesenchymal Stem Cells implantations, 3 times. After treatment, the pain in his neck and waist were alleviated, his stiffness had improved greatly, his spine could move more flexibly than before. Now the patient had given up alcohol already, his quality of life had improved very much.

Case analysis:

Rheumatoid arthritis (RA) and ankylosing spondylitis are autoimmune diseases which lead to self immune system disorders, and the patient has an inherited tendency also. In traditional therapy, doctors prefer to use NSAID, immunosuppressors, immunomodulators and steroids to control this kind of disease. In the early stages, these medications can be useful, but still had no use in some refractory cases. And these medications have very strong side effects, such as bone marrow suppression, drug-induced liver disease and infection post immune implantation.

In recent years, scientists have developed a new method for treating autoimmune disease with mesenchymal stem cells implantation. It has several advantages:

1. The mesenchymal stem cells can differentiate into immune cells, repair the immune system, some of them after implantation can repair and replace the damaged cells and tissue.
2. The mesenchymal stem cells can secrete different kinds of cell factors which can withhold inflammatory mediators and cells, repair damaged joints and the synovium, and block the development of the disease effectively.
3. There is no risk of a rejection reaction, it is safe and effective and the most important thing is that the stem cells treatment has a very measurable, positive effect.

Although stem cell treatment has positive effects for these autoimmune diseases, the patient still needs a comprehensive and systematic treatment plan. Traditional therapy still plays a very important role in our treatment procedure: the stem cells need a proper environment in order to grow better so that the general medications can adjust the internal environment, prevent the further damage to the bone joints structure, suppress the abnormal immune function, and actively treat for complications, in fact, traditional therapy is a vital factor in ensuring the overall success of the treatment results.