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Novel Story of Sciatica Sufferer

Abbas Alnaji*

Consultant Neurosurgeon, Al-sadir Medical City, Najaf, Iraq

***Corresponding Author:** Abbas Alnaji, Consultant Neurosurgeon, Al-sadir Medical City, Najaf, Iraq.

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Abstract

Long standing spine problems may extend for decades of suffering is common in spite of high level of medical and surgical care along all over the world. Here, I find it a good opportunity to present and discuss one of my cases who suffered from recurrent disabling sciatica for more than four decades however he is to start with a medical student. A intervertebral disc components taken to PCR study to reveal M.tb where no any sign refers to this type of infection neither in history or medical workup other than PCR. So, it is a turn in the route of current biological bases of clinical and surgical pathologies concepts should be taught of.

Keywords: *Sciatica; PCR Tissue Study; M.tb; Intra-Cellular Bacteria; Bacteriophage; Biological Bases of Medical and Surgical Pathology*

A fifty years old male who works as a consultant of some clinical specialties in one of Iraqi teaching hospitals suffered from some kind and grade of sciatica since early eighties. As time passes his problem increases in severity in spite of all measures taken at that time of early eighties as being a medical school student by his renowned seniors in the related field without stable solution apart from surgery which was not done until late date as Epiduroscopy with fiberoptic laser without practical long standing convincing positive result, for that he consult for a rigid endoscopy to remove the intervertebral herniated disc in attempt to end his increasing and continuous suffering and sometimes disability. Apart from clinical examination findings he brought two recent MRI studies of two years apart. The earliest MRI of 2 - 3 months showed the prolapsed disc in a state better than the older which gave me some uncertainty in the matter because he did not gave the history of Laser Epiduroscopy was undertaken before earlier MRI study. Epiduroscopy procedure is to pass a thin fiberoptic through a wide bore needle (cannula) traverse the sacral hiatus opening trnascutanously [1]. We proceeded in rigid endoscopic trans-foraminal discotomy where I took two separate biopsies one from Annulus fibrosus the other from Nucleus Pulposus during the discotomy act to PCR study. PCR kits at time of event was brought from foreign companies either as single microorganism selected by the surgeon or physician or limited multiplex of no more than five microorganisms selection of these done by the manufacturing company I do not know on what bases because I contacted a manufacturer of good reputation to make me a multiplex of microorganisms I choose, the manufacturer refused to do it and he remarked by "we cannot coup with your requirement", this was around 2018. The microorganisms I meant are only the intracellular bacteria. Not the extracellular apart from facultative bacteria [2]. By going back to our main issue of long standing suffering of this PhD or board level in clinical medicine patient, his complaints were reduced to about 50% in general after rigid endoscopic discotomy. So, when the result of tissue PCR appeared one month later with this moderate surgical outcome the following discussion was ensued between him and me:

Me: Dr. K. take your MRI study and go where ever in the world and let someone in related field of neuro-radiology or neurosurgery or whatever that you have *Mycobacterium tuberculosis* in this MRI study from the start where it shown in your intervertebral disc tissue PCR study.

Dr K.: sure, I am working in a teaching hospital the report of MRI radiologist did not mention any of that a part of degenerated prolapsed intervertebral lumbar disc.

Me: So we need to do all what is possible as retrograde workup in attempt to discover missed *M.tb* and so for environmental related personals.

Dr. K.: I did after the PCR result but nothing refers to this type of infection even my personal history since childhood.

Me: Do you think this is behind your discomfort since then like what we find in Salmonella or *Brucella* spondylitis, however not appear in MRI study?

Dr. K.: ?? (No answer).

Me: Do you think it is local and confined to your disc and spine or it is all over your body like when I take biopsies from sacro-illiac joint or recently from peri-scapular muscle and connective tissues as an indirect test to prove that all manifestations are mere a complications to a long standing sub-clinical affection with intra-cellular bacteria?

Dr. K.: I do not know, not sure about that.

Me: I call the biopsy took from your intervertebral disc is a direct study as it is taken from the target or the tissue in question while from other than target is being in-direct test. In this case we need to do the in-direct test with tissue biopsy from the peri-scapular region as what I am doing currently. If it is positive it looks disseminated in your body however no clinical appearance because when we say it is dormant it is a misleading for being there are clinical symptoms and signs or even diseases but not linked to this said dormant *M.tb* as in your case.

Dr. K.: I agree with you it seems logic, so we need to do the in-direct biopsy.

Me: Now as all previous measures and modalities failed to put your suffering down do think we need to start anti-tb course however it apparently should.

Dr. K.: Let's wait for the indirect biopsy PCR study.

It took several months neither in-direct biopsy done nor anti-tb started. From his side may be afraid from the biopsy or result so he sat calm or it appears so, from my side this delay is in my favor to cut that surgery did not solve the issue. As time passes may be six months or so with every now and then a contact from my side to plot the graph in precise. Then I decided to call him to do the in-direct biopsy. He came with his wife which seems the same age and well educated with hidden strong personality. We together re-discussed the matter for about one hour he asked to answer me about his agreement to do the in-direct biopsy and start of anti-tb next day. The next day answer was negative for all without any clear explanation!!!

As I am familiar with Brucellar low back ache on clinical bases earlier, then when the PCR kit for *Brucella* arrived, the results in first series of 100 patient (2018 - 2019) showed 25% PCR tissue positive for *Brucella*. Those patients diagnosed on my clinical experience and subjected to trial treatment, they got remarkable improvements on trial treatment with anti-*Brucella* whatever their clinical picture, duration, age, gender or occupation. The second series also 100 patients with same principles but the biopsy taken from periscapular region not like the former which was from sacro-iliac joint. The results of this second series what more than 60% positive in a time all patients got better with clinical trial with anti-*Brucella* of course no any symptomatic, palliative, supportive or physiotherapy it is even no

rest in bead the idea is to turn the patient in normal subject when we treat the cause which is the low grade infection, or more precisely the low back pain or other joints problems are complications to the long standing presence of intra-cellular bacteria within our cells. If it is so, the routine factors or causes standardly due the low back pain and joint problems (the spine got 4 joints call intervertebral facets anatomically they are typical joints as well as the intervertebral disc also it is a joint so biologically what affects joints affects here and there). Aging, work, exertion, abuse, miss use apart from other mentioned disabling diseases like rheumatological or so, these what the standard medicine say to cause degeneration of spine or other joints. Statistically more than half number of the sufferers are younger than to be middle aged and not all elderly are affected. So, the senility (high age) in this regard is weak to be the cause of degeneration so should abolished as a cause in causation of degeneration. work or exertion, what meant here by exertion is a heavy duty long standing job, here too, a remarkable percentage of patients either out of work or leading ordinary tasks like sedentary, housekeeping or factory workers without stress that explains the destruction or tissue change. Mild to heavy work builds the body! I use to ask my patients which one stronger (muscle-skeletal wise) me or the farmer, black-smith or the construction laborer? They say of course not you, they are stronger! Here I fact we should realize that movement however aggressive build the body and the sprains and aches faced in what is denoted as abnormal movement is mere a force passed in sub-clinical diseased structure (I am talking about ordinary force faced in routine daily activities and sport not force of being hit by train which also not causes degenerated disc or arthrosis), also like what we find in toothache experienced in chewing a soft piece of cake or even after drinking soft sweet drink when (comparative pathology) simply it means that tooth is caressed overt or occult in a time when the tooth is sound you can break a walnut with! Another example, one's finger whatever squeezed or subjected to an extra flexion - extension no pain is felt whereas any inflammation however mild, none of that can be done, why? Because it is inflamed in overt, means, clinically awared. Not all inflammations are overt, the majority are occult which they term it chronic or sub-clinical, it is difficult to show when they are in muscles or other structures in depth. Another tragedy hidden deep, it is this chronic or sub-clinical infection has a nature of not being carrying any of the cardinal symptoms and signs we being taught within department of pathology of the third year in medical school which are pain or tenderness, redness, hotness, swelling and dysfunction. Really it is neither in clinical sessions nor in pathology lessons. It is an intra-cellular (sub-cellular) interaction between the molecules of invader bacteria and that of the host cell. The yield of this interaction is either in favor of host or the invader. Really, I do not know what can be in favor of the host, if any, I will be grateful if being knowledge by some whom knows. While in favor of the invader is called disease or impairment or better alteration from the physiologic parameters and then anatomic in the end where the cell change from within, to without (morphological). The shape of the cell means its function, so the change in structure followed by change in shape it is time factor just when the interaction proceeds. The sum of change in shape (function) is what we call histopathology. This apply for all. Even onco- and carcinogenesis. I mentioned somewhere in my writings that this involved in viral role, where this intra-cellular bacteria is a nest for cultivation and grow of these viruses which blamed to cause DNA changes. From the above the change in characteristics of intervertebral disc is the result of long standing presence of intra-cellular bacteria as in our case however some consider it dormant, where many whom questioned from medical and non-medical personal expressed such presence of *M.tb* is guilty.

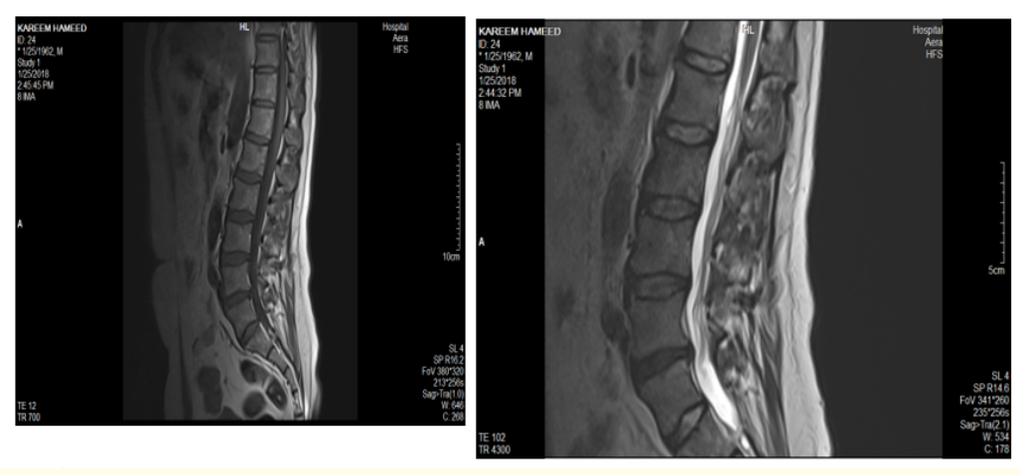

Figure 1

This MRI study 4 months after rigid endoscopic discotomy where it is obvious the degenerated disc is that of the usually seen in sessions of every routine surgery both radiological and macroscopic intraoperatively. Patient never being on anti-tb at any stage. Unfortunately, pre-operative MRI studies lost by the patient so we lack it to compare.

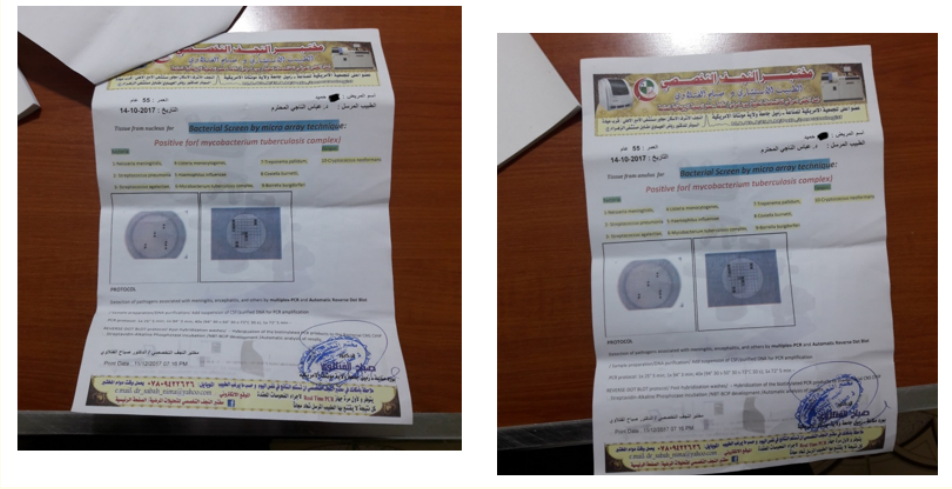

Figure 2

These are the Lab results for the separate biopsies for same disc, one for the nucleus pulposus and the other for the annulus fibrosus sent to the lab separately and both showed *M.tb*. I asked the supervisor who has PhD in immunology, could this be contamination!? He answered *M.tb* cannot be contamination.

Conclusion

As the history, systemic review, physical examination, all lab and imaging test and the apparently (normal) disc material macroscopically did not reveal or refer to tb infection, this case is an entry to the clinical medicine that things not should seen by the past eye (routine teachings). Nothing is innocent or dormant it should harm in a way remote from our expectation. For surgery, as the reality of surgical pathologies are medico-surgical events even post-traumatic, we have to re-think according to the concept of our cells suffer from a long standing invaders as not treated radical but symptomatically it with time turns into structural abnormalities which with surgery deals.

The post-traumatic injuries are also analyzed, evaluated and interpret as such !! when a given tissue subjected to a violence whatever its magnitude is, the net outcome of recovery in duration and residual tissue abnormality is seen through this vision, for example, after road traffic accident recovery the patient keep complains from his neck ache for a while either short or long period, simple plain x-ray study shows old spondylitis changes whatever the severity is, this could not due to the trauma by any mean. So the violence came on a pre-existing health problem, look, if it happened with a younger age patient, how can be understood without put our intra-cellular bacteria in damaging the spines of this young patient in absence of any apparent related disease? Again, the related disease like immune- rheumatic and all others should stand in its nature on the base of diseased cell of being invaded. The tissue biopsy with screen for bacteria of intra-cellular nature facultative or strict is the prove and evidence.

Moreover, as we find a wide world in all levels practice of muscle-skeletal impairments management is symptomatic and palliative including surgery, this refers that a worldwide un-awareness of the facts given or discussed above, every part of the globe has its similarity either this or that of intra-cellular bacteria we should not to omit.

Three patients showed two bacteria inside their cells like *Salmonella* and *Brucella* in one tissue sample in apparently normal looking tissues (macroscopically), other two patients showed *M.tb* with *H. influenzae* the other one showed *M.tb* and *Streptococcus pneumonia*, so what should think in a time we do not put the single bacteria in our consideration as a cause for our symptomatology only we think superficially with analgesics and related palliatives. There is a possibility that one of these three patients has three intra-cellular bacteria, two bacteria proved by lab result and the third bacteria is a virtual on clinical ground where she was treated successfully for *Brucella* on clinical ground where this *Brucella* did not appear in her tissue biopsy PCR study just *M.tb* and *H. influenzae* where both of they should not respond theoretically to the regimen was given.

Viruses and fungi are postponed from being under focus for many considerations the least of these considerations we are without real help for practical and wide facing with them.

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