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Case Report

Neuropraxia of Median Nerve, Carpal Tunnel Syndrome, Is No More Idiopathic

Abbas Alnaji*

Consultant Neurosurgeon, Al-sadir Teaching Hospital, Iraq

***Corresponding Author**: Abbas Alnaji, Consultant Neurosurgeon, Al-sadir Teaching Hospital, Iraq.

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Abstract

Median nerve neuropraxia or Carpal Tunnel Syndrome CTS affect both genders, many etiologies had been prescribed with no radical medical and physical treatment, surgical decompression is the solution in the end of the story in a considerable proportion. If we forget about discomfort accompanying surgery, a dangerous and unfavorable sequel is often seen as a long standing complications of decompression which is the recur of the symptoms sooner or later with fibrosis in area which prevent further surgical exploration. For that a permanent suffering will last. Brucellosis may be all the novel where more than 50 patients of both gender young to middle age suffering from moderate to severe median nerve entrapment both clinically and with nerve conductive studies, when I concentrated on the patient as a whole I found that CTS is one feature of the patients complaints. When trial treatment against the clinical entity which is *Brucella* ensued a magic response obtained away from analgesia and other standard therapies. PCR of flexor biopsy is positive for *Brucella* in 5 out of 7 patients whom underwent surgeries.

Keywords: *Carpal Tunnel Syndrome; Brucella; Biological Surgery*

Introduction

Median nerve entrapment is one form of neuropraxia often faced in medical and surgical practice. Medical treatment is palliative in its principle. When this failed, surgery is a decompressive in its nature. So, neither nor are radical and directed to the cause. Logically, when an issue treated with a non-radical measures in all levels, it should be completely treated so far from its real nature. For that I will take carpal tunnel syndrome CTS as a material to discuss its causative nature this is in one hand, the other to introduce to a concept of "THE BIOLOGICAL SURGERY, which is a big gain with minimal or no surgical act by using the biological power of the body".

Method

50 patients seen in routine practice, 20 males and 30 females of young to middle age have moderate median nerve entrapment by nerve conductive study NCS, two of them are females with severe entrapment by NCS. Treated with antibrucella without any steroidal and non steroidal analgesics, sedation or rest. Blood samples were collected for serological examination as test tube (Rose Bengal), ELISA and PCR. Another 7 patients of 22 – 35 years of age are selected randomly for surgical decompression, 5 females and 2 males, all with severe entrapment by NCS with biopsies taken from the flexor retinaculum for PCR *Brucella* study, blood for serology and PCR taken for the same. More than one year follow up.

Results

Non surgical patients treated with antibrucella, all patients got relief from symptoms including the two sever cases in a few days interval in a gradual fashion to reach its complete relief in a matter of 2 - 4 weeks of treatment. NCS returns to normal in moderate cases in a period of 2-3 months, while not in sever entrapment cases in spite of excellent relief up to one year, unfortunately follow up missed at this stage due to patients ignorance or because of their happy results. Rose bengal serological test tube was negative in all patients treated successfully with antibrucella trial treatment, 20% of them positive by ELISA. PCR Blood test for *Brucella* was same as others, not

informative. While PCR of Tissue (Trapezius muscle open biopsy) is positive in 50% of patients (as PCR is recent in our study the number of patient is 10 females included in the total number which is 50). In surgical patients 5out of 7 (71%) biopsies of the flexor retinaculum were PCR positive for *Brucella* (taken from other surgeons whom do not believe in causation as Brucellosis). As for serology and blood PCR, the same is true for non-surgical patients (these are not included in the total number which is 50).

Discussion

Despite the right surgical indications for CTS decompression and so the technique, I witnessed in my practice a considerable number of patients over 20 cases through 20 years of my neurosurgical career, whom underwent decompression they visited my clinic for advice because of their suffering from the same or a worse symptoms and signs of median nerve compression after a honey moon interval of relief post surgical decompression, some come with Ulnar nerve involvement which augment my idea of pathogenesis. After variable intervals 6 months – 2 years patients showed gradual recurrence of the symptoms and signs of CTS. I think it is not important about the number of these 20 recurrent cases out of how many whom benefit surgery! Because if I did, I will never come to this conclusion of what the cause might be!!! Recurrence in symptoms and signs with fibrosis of the wound and its underneath layers in some of these patients, gives impression of an active ongoing process of inflammation from the start, the decompression did not stop it. This inflammation which is proved by trial treatment, is a bacterial, RATHER THAN a degenerative or non-specific inflammatory finding in histopathological studies on biopsies taken from CTS surgeries as it is mentioned in literatures which is very well known by this field specialists. This inflammatory process which lead to fibrosis in some patients which distorts the micro-anatomy of this flexor tunnel with entrapment of the median nerve trunk (non-traumatic neuropraxia) making the surgical release option is impossible again, the same event acts, to involve Ulnar nerve. I concluded a chronic active Brucellar inflammatory process CABIP could be the cause. As all responded to the trial treatment of anti Brucella, this encourages the etiology. From clinical point of view, this chronic active Brucellar inflammatory process CABIP in the wrist, is NOT COULD BE a part of a systemic chronic sub-acute inflammatory process!! It IT SHOULD BE SO! and we have to think S0, rather than we focus our entire mind in the wrist only!!! We have to think in the body as a whole, as a one unit, or a system, actually it is so. And this CTS is one feature of this general systemic illness. If we do not put this idea in our mind we will never find it, even other sings of systemic infectious illness are evident. By this, what one could say if CTS is the only finding for this general or systemic illness! As I mentioned earlier, one should put this fact in his consideration, appropriate clinical work as history taking, systemic review and general thorough physical examination. He will discover many other features the patients suffers from other than the chief complaint the patient came with seeking medical help. These "other" features in summation will point to a systemic rather than local problem and surgeon should be a good physician to elicit a medico – surgical disease otherwise surgeon role will become mere open and close and has no contribution in pathogenesis discovery. Now to answer the question why we thought of *Brucella* from the start? Simply because I put in mind that the patient is a whole not local and his collective clinical picture or features pointed out to a suspicion and likelihood of *Brucella*, I went after this clinical sense and proved it by trial treatment with anti Brucella and then by PCR which it could be the same in other parts of the world so it might be more cosmopolitan than we think in standard.

Conclusion

However 50 (plus the 5 of positive biopsies) cases are not that big number to decide the real nature of the causation, but we can focus on this base to launch a wider trial treatment study and PCR work up to discover more. Clinically, Brucellosis is present in most of the patients; it is needed from the surgeon just to put it in his mind to discover it, rather to concentrate on the wrist only, forgetting that it could be remote complications of a chronic sub acute systemic bacterial disease. In my work *Brucella* is very common in Iraq, Jordan and Libya "(I worked there 2006-7, 2007-8 respectively)" however it is denied by the majority, which could be the same elsewhere! PCR negative cases does not exclude the infection, or could be due to other offending microorganisms like *Salmonella*. We are in an urged search to pin point more by doing a screen test by PCR for all intracellular bacteria to direct and non direct open biopsies. I do not in need to mention clinical pictures of chronic Brucellosis and so the what had been mentioned in literatures, simply because whom who had put in his mind to be a surgeon of open and close or spoon feeding, this article is not dedicated to him or her. .

Recommendation

Pure surgical intervention omitting the treatment of the causation is unwise approach. So, this article is an invitation to think outside the tunnel.

This work is dedicated to whom in touch with the unknown, scientists and genius researchers.
So, I will mention no references.
Because they are the reference themselves.
Abbas Alnaji

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