Keywords
Diagnostic method “recognising fibromyalgia.” Recognising the fibromyalgia syndrome and the accompanying pseudo-vegetative syndromes. Synthesis of Far East knowledge and the latest western neuroanatomical and neurosurgical skills.

Summary:
This is an introduction to a new diagnostic method to clearly identify fibromyalgia / the fibromyalgia syndrome in patients of either gender and any age. False positive results have not been observed to date, and false negative results are caused by specific circumstances. The examination technique is a synthesis of classic so-called western medicine and classic so-called Far East medicine.

The diagnosis of fibromyalgia, abbreviated as FM below, is uncertain. Therefore, many doctors believe that FM does not exist as a disease since it is not measurable or visible. They state it is a diagnosis by exclusion, e.g. if nothing else can be proven then this diagnosis may be considered. They may also consider it a mental disorder since it does not follow a comprehensible pattern. These psychosomatic definitions are extremely questionable for the simple reason that the term “comprehensible pattern” is based on the erroneous assumption that all doctors have the same knowledge and that this “knowledge” is a common reference point.

The attempt to create a definition using tender points was misunderstood. The points that caused pain when subjected to pressure were thought to be the disease itself, which is not correct. Due to this misunderstanding, patients suffering from pain were repeatedly subjected to extremely painful treatments that attempted to influence the points that caused pain when subjected to pressure (tender points) directly through things such as dietary changes, the injection of various substances, surgical removal, or ultrasound treatments based on lithotripsy.

However, these extremely painful treatments caused the condition of all patients to worsen. This is no wonder, since the following principle applies:

Anything that causes pain worsens FM.

The tender points are evidence of the presence of the disease in the soft tissues and muscle tissues, and of the pain syndrome. If the presence of tender points is substantiated and the patient history matches the clinical picture for the disorder, a diagnosis of fibromyalgia / fibromyalgia syndrome is likely.

The difference between trigger points (painful pressure points with a remote effect, e.g. in case of myofacial pain) and tender points (in case of FM) must be observed. Unlike trigger points, tender points are only painful under pressure and the patient is not aware of them. Therefore, patients may criticise their physician after the examination: “Doctor, before I came to see you I had no pain and now my body hurts all over.” This is an observation that acupuncturists have also made. Remarkably, patients suffering from myofacial syndrome only have trigger points but no tender points, while patients with FM have both (Pongratz 1998). According to Dung (2004), trigger points can be defined as “acupoints in reactive phase” while tender points can be defined as “acupoints in passive phase.”

The introduction of the palpometer-algorimeter-dolorimeter did not represent a solution to this dilemma; while contact pressure can be measured and / or applied in a targeted manner, the patient’s reaction is still not quantifiable. After all, the intensity of patient reactions to the same contact pressure varies. The reactions depend on medications and their effects, and also change according to the time of day and from one day to the next. This is why the author chose a different path between 1984 and 1987. The observation that patients suffering from pain exhibited acupoints sensitive to pressure when they were touched while the same points were pain-free or only caused minor pain in healthy individuals formed the starting point. It turned out that the 18 tender points defined by the ACR corresponded to conglomerates of known acupuncture points. While they did not always correspond 100 %, the 18 areas defined as tender points (they are not true points) largely corresponded to areas that include acupoints recognised as important to acupuncture. Without derogating the achievements of the ACR, it needs to be said that their authors ultimately reinvented the wheel – albeit in an incomplete manner compared to the
ancients in the Far East several thousand years ago.

Based on this correspondence, a hypothesis was developed stating that each acupoint can become a tender point depending on the pain symptoms and the duration and intensity of the pain syndrome. During the first few years (1984-1990), the location of points that caused pain when subjected to pressure were recorded on handmade outlines of an acupuncture dummy. Over time, it turned out that certain acupoints were identified constantly while others occurred much more rarely.

This created empirical maps, e.g. a system of acupoints and also a sort of acupoint hierarchy. It turned out that in order to understand the localisation of pain, the distribution of pain, and also the source of pain (e.g. the patient history), the body of the patient can be divided into four quadrants and each of these four quadrants is controlled by an area of acupoints. The upper quadrants are controlled by acupoints in the forearm area close to the outer epicondyle, while the lower quadrants are controlled by acupoints in the inner ankle area (Bauer 1998,1999). There are also other acupoints that may cause pain when subjected to pressure. The larger the number of additional acupoints that cause pain when subjected to pressure, the more difficult the task of evaluating the clinical picture of fibromyalgia / fibromyalgia syndrome becomes.

Naturally, the sensitivity of all acupoints that act as tender points also depends on the use of painkillers or even drugs. While the intensity of pain caused by palpation can be influenced, the position of the painful points cannot be influenced. This resulted in a system of points that may cause pain when subjected to pressure, regardless of pressure intensity and / or the intensity of pain caused by pressure. The points are counted regardless of the intensity of pain, providing an objective and quantifiable measurement method for pain syndromes.

**Patients and methods**

The hypothesis described above was tested on patients between 1984 and 1990. The indication for surgical intervention in the four important areas that had been identified commenced in 1990. Since 1990, the number of patients that were examined and those that were operated has increased exponentially. In retrospect, as of 2007, it is possible to report on the examination of over 10,000 patients and on operations on 3,200 patients from this group. Every third patient that was examined suffered from fibromyalgia that was severe enough to indicate surgery and for the patient agreed to the operation.

Due to the amount of effort required and the high costs - no research sponsor was found - a retrospective study to examine the quality of results was limited to patients operated between 1990 and 2000. A second prospective study that is still ongoing was launched in September 2003. Patients are accepted into the study according to the surgery date, naturally creating a random sample. A placebo control is not required since all treatment options had been exhausted for patients that came for surgery. All recommended, available measures paid by insurance had been tried without success.

It should also be noted that a disease that is considered incurable requires the use of different statistical rules than a medication study for a non-essential compound to replace another compound for which the patent is expiring.

The all-or-nothing principle applies to incurable diseases and surgical therapy. All patients who are not operated will in fact continue suffering from pain. The number of patients that are free of pain after the operation represents progress and is clearly a result of the discovery (Bauer, Myopain 2004).

**Result:**

Without an operation, all patients continue suffering from pain; with the operation, patients have a good chance of becoming pain-free.

This is all the proof required in order to confirm the effectiveness of the operation compared to conventional multi-modal therapies - even from an EBM point of view.

The purpose of this paper is to teach the diagnostic method. It is not meant to communicate the quality of results for the operation.

The new examination technique is the first to provide the medical fraternity with a way to objectively and precisely answer the question posed by the patient to his or her physician:

"Do I have fibromyalgia, or not?"

If it turns out, over the course of time, that 2% to 3% of the employed adult population suffers from fibromyalgia - as there is reason to suspect - then the socio-economical aspect needs to be considered.

Millions of fibromyalgia sufferers need their debilitating disease to be recognised - and they need help.
1. Examination technique for the upper quadrants

The patient sits facing the examiner, upright and with the upper part of the body exposed, and is examined according to acupressure rules. The following observation needs to be taken into account: While the intensity, duration, type, and localisation of pain changes, this migrating pain follows a simple pattern: It expresses itself in acupoints that cause pain when subjected to pressure, and the acupoints are located on the so-called meridians (Fig. 1,2,4,5,6).

Prior to the examination, the patient completes a questionnaire. The patient sits on an examination stool with no backrest, facing the examiner in a relaxed manner. Various grips and examination techniques are used. For simplicity, these are specified in point form and explanations are provided in brackets where required. Handclasp, right (using the right hand of the patient and the examiner). Handclasp, left (using the left hand of the patient and the examiner). Is there any difference between the two sides, is one side weaker than the other, is one side more painful than the other? The conspicuous side may be the “worse” side and would be the primary candidate for an operation, if needed. Ask about handedness according to strain and physical work completed in the past.

After this initial contact, the patient is advised that the examiner will apply pressure in various locations as a kind of game. The patient is required to provide an audible indication of pain when it is felt and to say nothing when no pain is felt.

The upper extremities, starting at the fingers and moving up to the neck, head, and top of the head, are examined using this yes-no examination technique. Various examination techniques from hand surgery, peripheral nerve surgery, neurology, scientific acupuncture, general surgery, and orthopaedics are used simultaneously without explaining them to the patient. Palpation of the small finger joints while observing whether the finger axis is straight or deviates in the ulnar direction. (In case of ulnar deviation, there is a high probability of true rheumatism...
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- chronic polyarthritis.) If the finger axes are straight, the probability of polyarthritis is low even if there are other indications that point towards it since it primarily leads to ulnar deviation of the fingers.

It is also necessary to check for swelling / agglutination of the distal interphalangeal joints (Heberden arthrosis) and swelling / agglutination of the proximal interphalangeal joints (Bouchard arthrosis). In addition, the saddle joint must be palpated and moved with care. If it is free of pain, pressure can be increased and an attempt can be made to create crepitus through palpation. If crepitus can be generated through palpation and the patient indicates pain in the area of the saddle joint, suspicion of so-called saddle joint arthrosis (rhizarthrosis) has to be noted.

It is important to note that Heberden, Bouchard, and rhizarthrosis are not characteristics of chronic polyarthritis; that is, they must not be confused with true rheumatism. At the same time, the stability of the collateral ligaments of the interphalangeal joints and the stability of the collateral ligaments of the thumb base joints also has to be observed.

Extension tendon manipulation.
Flexion tendon manipulation.
Finger.

Palpate on the palmar side in the vicinity of the thumb and finger base joints in order to check for swelling of the flexion tendon which could lead to Digitus saltans. Tendovaginitis stenosans and Morbus Raynaud also must not be confused with true rheumatism.

Percussion sensitivity of the Nervus medianus in the carpal tunnel, percussion sensitivity of the Ramus thenaricus, the N. medianus above the Thenar.

Percussion sensitivity of the Nervus ulnaris in the Hypothenar.

Skin sensitivity on the extension side and the palmar side of the hand (all of these examinations serve to clinically establish whether nerve compression syndromes are present).

Pain caused by pressure to the Nervus medianus must be clearly distinguished from pain caused by pressure to the lung 10 acupoint at the edge of the Metacarpale I and pain caused by pressure to the large intestine 4 acupoint above the M. interosseus I.

(Pain caused by pressure to these two points is the first indication of possible fibromyalgia!)

Examination of the elbow and, in particular, the Epicondylus humeri lateralis and medialis for pain caused by pressure. This examination is used to determine if there are any indications of epicondyritis (tennis elbow on the outside - golfer’s elbow on the inside). Next, the Nervus ulnaris is palpated in its groove and also more distally in the forearm and more proximally on the distal end of the upper arm. Pain caused by pressure in this area is an indication of Sulcus nervi ulnaris syndrome which can be established or excluded with an EMG.

Acupoints large intestine 13 and large intestine 14. It is necessary to ask whether any vaccinations were administered in the vicinity of large intestine 14 in particular and if so, it is important to know if it was an active vaccination or with pre-treated virus. If a vaccination with a pre-treated virus happens to be administered exactly at the location of large intestine 13 or large intestine 14, there is a risk that the live vaccine inoculates the small nerves of the corresponding acupoints and therefore triggers or activates fibromyalgia. The fact that vaccinations on the upper arm should not be administered within the centre line or at the height of the start of the M. deltoideus, precisely in order to prevent active vaccines from inoculating the nerves in these acupoints, is assumed to be common knowledge.

Radius head - pain-free inversion movements underneath the palpating thumb must be possible. Establish pain caused by pressure to the acupoints large intestine 11, 10, 9, 8, 7, and 6. Then pain caused by pressure to the acupoints lung 5 and lung 6 (anterior portion of the forearm) as well as lung 1 and lung 2 (anterior portion of the shoulder joint). (Fig. 1,4) Establish pain caused by pressure to the remaining acupoints of the meridians on the forearm and upper arm, the lateral triangle of the neck, lower jaw, and the so-called trigeminus egress point. Palpation of the acupoints Pe 1 and 2: Tenderness indicates the possibility of pseudoheart attacks, functional mitral dysfunction, palpitations, arrhythmia, hyper or hypo blood pressure (Fig.2).

Examining the head

The examination begins in the occipital area and largely follows the points of the gall bladder meridian to the ear, to the Articulatio tem-
poromadibularis, and to the eye. Percussion of the skull, palpation of points on the bladder meridian. Various acupoints at typical locations in the shoulder and neck area and the hairline may cause pain when subjected to pressure, especially acupoints along the gall bladder meridian and acupoints along the bladder meridian.

The shoulder-neck contour and the upper medial and lower scapula edge are also palpated at the same time. The percussion sensitivity of the spine is examined (in fibromyalgia patients, the spine is not usually sensitive to percussion but the respective bladder meridian to the right and left sides of the spine is).

Pressure sensitivity of points on the gall bladder meridian in the thorax and costal arch areas (gently tickling the patient in this area first in order to distract him or her is recommended - the shock of sudden pain when pressure is applied to the corresponding points on the gall bladder meridian is that much greater) (Fig. 5).

Subsequently, the bladder meridian should be gently stroked on the right and left in order to relieve possible tension on the part of the patient. (Fig.6)

Finally, the mobility of the thyroid gland should be examined, possible lymph nodes in the area of the lower jaw should be observed, speech and singing should be questioned, and the patient should be asked about any difficulty swallowing or feelings of having a lump in the throat.

**Final evaluation**

The diagnosis of fibromyalgia for the upper quadrant under examination is established without doubt if the points large intestine 7, 8, 9, 10, 11, 13 (and possibly 14) and the points lung 5 and lung 6 (and possibly 1 and 2) are painful when subjected to pressure. All other points that also cause pain when subjected to pressure serve to confirm the diagnosis and facilitate an estimate of the extent and severity of the disease in the quadrant and therefore an estimate of the probability of success for an operation on the outside of the corresponding forearm.

**2. Examination technique for the lower quadrants:**

The patient is asked to get dressed so that he or she does not get chilled or so that he or she does not catch a cold if the examination was painful. Then the patient is asked to undress to his or her underwear on the lower quadrants and to lie down on the examination table. The head of the table should be elevated slightly; the patient should be provided with a head or neck rest if desired. Once the patient is lying down, he or she is asked if lying on the relatively hard surface causes any pain. If the patient confirms this, this is considered an indication of a particularly severe form of fibromyalgia.

First, the patient is carefully grasped by the ankles and the legs are extended cautiously. The purpose of this grip is to align the legs and to determine if one leg is shorter than the other. One leg does frequently turn out to be shorter. However, the difference is usually no more than 1 cm so that an adjustment of approximately 6 mm can be recommended - unless fibromyalgia is found and a fibromyalgia operation is carried out. A successful fibromyalgia operation will show that the leg was shortened due to pain. As the musculature relaxes after a successful operation, the length difference between the legs disappears on its own.

**Examination steps (Fig. 3, 5, 6)**

Forefoot compression pain. Forefoot compression pain may also arise if the patient suffers from Morton’s neuroma. This possibility can be excluded with a clinical examination of the metacarpal interstices from above and below. Test deactivation using an injection of a local anaesthetic without adrenalin adjuvant or similar may be required. Fibromyalgia patients typically experience forefoot compression pain that can be intensified by pressure on the interstice between the 3rd and 4th toes (gall bladder acupoint 43).

Vigorous rubbing from proximal to distal on the edge of the tibia, vigorous rubbing from distal to proximal over the fibula. The purpose of these two examination steps is to check the path of the stomach and gall bladder meridians. The stroke direction is oriented according to possible pain. Pressure to the acupoints on the kidney meridian, especially 1, 2, 3, 4, 5, 6, 7, 8, and 9 all the way to the stellate formed by the three spleen-pancreas/liver/kidney meridians on the inside of the lower third of the lower leg (Fig.3). In FM patients, these points are extremely sensitive to pressure. Defensive reactions, tears, and rising blood pressure are possible in response to the pain.
The amount of pain caused by pressure to the points on the kidney meridian normally decreases proximally until it once again increases significantly just below the knee on the medial side in the area of the tibia head. The acupoints on the gall bladder meridian on the outside of the lower leg are examined, and so is the acupoint in the middle of the inside of the thigh which is part of the liver meridian.

Palpate groin, Spina iliaca anterior or superior, and Crista iliaca.

Palpate the costal arch and below the Processus xiphoideus in the stomach region.

Palpate the abdomen (the usual internistic-surgical examination technique for the abdomen should be completed, including the inspection of any scars and asking about any past operations).

Pain caused by pressure applied to the navel.

Ask about pain in the genital and anal areas - this type of pain is often concealed due to a sense of shame (problems during coitus, problems during bowel movements, anal burning, etc.).

Percussion to check for a flatulent abdomen, specific questions about bowel movements and related irregularities, especially alternating constipation and diarrhoea (signs of irritable bowel syndrome), ask about pain that radiates from the kidneys to the groin (kidneys, urinary tract).

Ask about burning during urination and frequency of urination (irritable bladder in terms of interstitial cystitis).

Let the patient breathe deeply and allow him or her to assume a more comfortable position on the examination table is recommended.

Check the Lasègue. Flexion of the lower extremity, examine hip joint mobility by asking the patient to flex the hip joint by 90° while lying down and also flexing the lower leg by 90° in relation to the thigh. This way, the lower leg serves as an indicator of the exterior and interior rotation in the hip joint. If the patient complains about discomfort in the groin or buttock areas during exterior rotation but the joint moves freely, this is considered an indication of fibromyalgia. This also applies if the patient complains of the same or similar discomfort during interior rotation. The stability of the knee joint is examined while the knee is flexed (to exclude the possibility of damage to the meniscus or the inner and outer ligaments). If there is any evidence of interior knee joint damage, an MRI of the knee joint should be recommended to the patient before proceeding with an operation to the lower quadrant (avoid an arthroscopy if it is not needed!). The hollow of the knee is also palpated while the knee is flexed. In case of fibromyalgia, the bladder 39 and bladder 40 acupoints cause pain when subjected to pressure. (This may lead to an incorrect diagnosis of a Baker's cyst.) The fact that this examination should be completed in the same way on the right and left sides, with equal speed and in the same manner so that possible differences between the two sides become clear, goes without saying. (Fig.6)

Next, the patient is examined to determine pain caused by pressure along the outer portion of the bladder meridian. For simplicity, three points that run at an angle from the iliosacral joint interstice to the buttock fold are selected. The examiner’s right hand is placed on the Spina iliaca anterior superior of the pelvis and brief but decisive pressure is applied to the three points on the left-hand bladder meridian. Gentle pressure should be applied the first time and, depending on the reaction of the patient, stronger pressure the second time.

Change hands. The examiner’s left hand is placed on the Spina iliaca anterior superior of the pelvis and brief but decisive pressure is applied to the three points on the left-hand bladder meridian. Gentle pressure should be applied the first time and, depending on the reaction of the patient, stronger pressure the second time.
ca anterior superior on the left side of the patient, and the examiner uses the right thumb to apply pressure to the points on the outer portion of the bladder meridian on the right side. This is followed by the examination for trochanterodynia, that is, pain caused by pressure on the gall bladder 30 acupoints on the left and right. First, percussion is applied to the point with the bare fist. This usually does not cause pain. Then, pressure is applied to the acupoint with the thumbs. The patient normally tilts sideways due to pain and draws aside in the other direction with the pelvis. One should be prepared for a pronounced defensive reaction, and grasp the patient's pelvis with both hands in order to keep him or her from falling if required. (This finding is often confused with Bursitis trochanterica!)

**Evaluation summary:**

The diagnosis of fibromyalgia for the lower quadrants under examination is established without doubt if the points gall bladder 43, kidney 3 to 9, and MP 6 as well as the points on the inside of the tibia head cause pain when subjected to pressure. All other points confirm the diagnosis of fibromyalgia and are an indication for the severity of the syndrome in the quadrant. Any difference between the right and left sides should be noted.

The patient also has to be asked what was more painful for him or her, the examination of the upper quadrants or the lower quadrants and the examination of the right side of the body or the left side of the body.

The patient’s answers are noted as subjective patient information, while the examiner’s impression and findings are entered on small schematic patient diagrams. For clarity, it is not recommended to enter all points but to mainly use concentric circles (entered on the respective elbow or ankle joints of the diagram) to record the intensity of the findings. This simplified overview clearly indicates whether the patient is suffering from fibromyalgia on all four quadrants, whether the patient has more pronounced fibromyalgia on the right side or the left side, whether there is a diagonal from one upper quadrant to the lower quadrant on the opposite side, etc. Thus this diagram can be used to record both the severity and the distribution of fibromyalgia.

By taking note of other so-called “vegetative” or “psychosomatic” symptoms discussed with the patient, it is possible to record if any of the following are also present:

- Headaches
- Oral and / or facial pain
- Irritable bowel syndrome
- Irritable bladder syndrome
- Difficulty swallowing
- Heart problems
- Fatigue
- Difficulty concentrating
- Amnesic-confabulatory syndrome
- Other

Examining the four quadrants takes approximately 1 hour if the patient history is covered concurrently.

It is easy to see that hand surgery, general surgery, orthopaedics, neurology, neurosurgery, and internistic examination techniques were used. This results in an overall picture of the patient that summarises all pain aspects, symptoms, and complaints to the best of the examiner’s knowledge.

Most patients are very spontaneous since they have never been examined this thoroughly. Naturally, this realisation strengthens the relationship of trust between the examiner and the patient, creating a good foundation for a discussion of the pros and cons of possible surgical treatment for fibromyalgia. This is especially important in severe cases where all four quadrants are affected and the patient has to accept the risk that one operation will be insufficient in 50% of such cases and that several (from 2 up to maximum of 4) operations on various quadrants may be required.

**Evaluation of the examination technique:**

The examination technique, which was developed at the end of the 80’s, has been systematically proven since 1990. The following needs to be stressed: Patients who were recommended for surgery did not exhibit negative findings in the sense that no agglutination or scarred plaque formation could be found in the vicinity of the corresponding nerveal structures during the operation. **Such tissue changes were found in all cases.** This proves that the examination technique does not result in false positive findings.

False negative findings occur when the patient has used strong painkillers prior to the examination or when the examiner is inexperienced and therefore lacks the confidence to press firmly enough or presses so firmly that the patient...
refuses to cooperate. In such cases, the examination should be repeated after approximately 3 months. It is also difficult to evaluate the situation if the patient exhibits the subjective signs of migrating pain and pain all over, but the examiner determines that all the points that were examined exhibit pain when pressure is applied since the patient is apparently undergoing an acute phase so that all latent and passive acupoints are active. In such cases, the internistic / infectological examination of the patient combined with virus diagnostics has proven effective. The treatment should be completed in a pain clinic on an inpatient basis. The patient should receive massive treatment with medication. Re-examination after the end of the acute phase is recommended. The examination technique described above can then be expected to result in diagnostic findings that allow two basic questions to be answered:

Is the patient suffering from fibromyalgia? Yes / no

Does a surgical approach make sense? Yes / no

Summary

As an expression of respect and honour for ancient wisdom from the Far East, no new nomenclature was developed. The time-honoured terms such as meridian and acupoint and the time-honoured names were retained. New names are not required for this novel diagnostic examination technique. Quite the contrary. Retaining the ancient, established Far East nomenclature for the acupoints facilitates discussions with experienced acupuncturists and also encourages the western medical profession to accept Far East knowledge. This is being said without any ulterior motives or intent to derogate the achievements of researchers who are also working in this field.

Surgical quadrant intervention represents the pinnacle of the successful push for new global medicine. It makes it possible to relieve what appears to be a mental affliction through surgical intervention in the peripheral nervous system (PNS).

List of Literature

Bauer JA: FMS - The Fibromyalgia Syndrome (FMS) (since 2004) The actual issue of Fibromyalgia Patient’s Guide, free of charge, can be requested under: office@fms-bauer.com


Wormer EJ, Bauer JA (Ed.): Gesundheit, Vitalität und Lebensfreude, 12 Volumes, Helmut Lingen, Köln (2006)


Bauer JA (Spon.): Surgical procedure as a cure for intractable fibromyalgia syndrome of long duration. MYOPAIN World Congress, The International MYOPAIN Society (IMS) Sixth International Scientific and Clinical Meeting, München (2004)

Bauer JA (Spon.): A New Method for Diagnosis and Therapy of Fibromyalgia Syndrome (FMS). Presentation, San Diego, Convention Center (2002)


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