Musculoskeletal sports injuries and its homoeopathic approach

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Abstract
Sports injuries are injuries that occur during sports, athletic activities, or exercising. Numerous musculoskeletal structures, including muscles, ligaments, and bones, may be impacted by these injuries. One of the most frequent issues with sports injuries that cause loss of physical independence and mobility is musculoskeletal disorders. Thus, most practicing physicians are faced with problems related to sports medicine at least occasionally and those who become team physicians find that they are providing primary care to athletes, in addition to acting as medical advisors to the coach. Since its inception and beyond, the homoeopathic medical system has demonstrated its effectiveness in treating a variety of ailments. In the field of sports medicine, homoeopathic treatments have shown to be effective in treating athletes’ discomfort as well as enhancing their all-around performance and endurance levels. Along with general therapy, a variety of homoeopathic medicines are chosen based on homoeopathic principles, which not only aid in the patient's pain relief, but also helps to prevent permanent incapacity.

Keywords: Sports medicine, musculoskeletal injury, homoeopathy, homoeopathic medicines

Introduction
Encouraging the promotion of a physically active lifestyle worldwide is particularly emphasized due to its multiple health benefits. Sports have numerous positive effects on health, including lowering the risk of diabetes, obesity, heart disease, and hypertension as well as increasing physical fitness. Sport has a growing social significance because physical exercise is being carried out in more organised ways. This has positive effects on public health as well as individual health over time.

But Sports is a double-edged sword regarding effects on health [1]. Athletes who participate in a variety of sports run the danger of suffering injuries.

Sports medicine
Treating injuries sustained during sports and games is the focus of the medical specialty known as sports medicine [2]. It overall deals with
- Prevention of sports related injuries
- Diagnosis
- Treatment
- Improving performance
- Improving endurance

Sports Injury
Sports injuries are injuries that occur during sports, athletic activities, or exercising.

Musculo-Skeletal Sports Injury: The International Olympic Committee (IOC) in its manual on sports injuries defined MSK-I as “new or recurring musculoskeletal complaints incurred during competition or training that require medical attention, regardless of the potential absence from competition or training” [3]. These injuries may impact many musculoskeletal components, including bones, ligaments, and muscles. Depending on the mechanism of injury and the time at which symptoms appear, an injury can be characterised as either an acute injury or an overuse injury [2].
Classification of musculo-skeletal sports injuries

<table>
<thead>
<tr>
<th>SITE</th>
<th>ACUTE INJURIES</th>
<th>OVERUSE INJURES</th>
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<tbody>
<tr>
<td>BONE</td>
<td>FRACTURE</td>
<td>STRESS FRACTURE</td>
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<td></td>
<td>PERIOSTEAL CONTUSION</td>
<td>&quot;BONE STRAIN,STRESS REACTION&quot;</td>
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<tr>
<td></td>
<td></td>
<td>OSTITIS,PERIARTHRITIS</td>
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<td></td>
<td></td>
<td>APHYSITIS</td>
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<tr>
<td>ARTICULAR</td>
<td>OSTEOCHONDAL/CHONDRA Fractures</td>
<td>CHONDROPATHY,(E. G. SOFTENNG, FIBRILLATION,)</td>
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<tr>
<td>CARTILAGE</td>
<td>MINOR OSTEOCHONDAL INJURIES</td>
<td>CHONDROMALACIA,ETC)</td>
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<tr>
<td>JOINT</td>
<td>DISLOCATION</td>
<td>SYNOVITIS</td>
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<td></td>
<td>SUBLUXATION</td>
<td>OSTEOARTHRITIS</td>
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<tr>
<td>LIGAMENT</td>
<td>SPRAIN/TEAR,(OR I-III)</td>
<td>INFLAMMATION</td>
</tr>
<tr>
<td>MUSCLE</td>
<td>SPRAIN/TEAR,(OR I-III)</td>
<td>CHRONIC COMPARTMENT SYNDROME</td>
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<tr>
<td></td>
<td>CONTUSION</td>
<td>DELAYED ONSET MUSCLE SORENES</td>
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<tr>
<td></td>
<td>CRAMP</td>
<td>FOCAL TISSUE THICKENING/FIBROSIS</td>
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<tr>
<td>TENDON</td>
<td>TEAR,(COMPLETE OR PARTIAL)</td>
<td>TENDINOPATHY</td>
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<tr>
<td>BURSA</td>
<td>TRAUMATIC BURSIT</td>
<td>BURSIT</td>
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<td>NERVE</td>
<td>NEUROPRAXIA</td>
<td>ENTRAPMENT</td>
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<td>MINOR NERVE INJURY/IRRITATION</td>
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<td>ALTERED NEUROMECHANICAL SENSITIVITY</td>
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<td>SKIN</td>
<td>LACERATION</td>
<td>BLISTER</td>
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<td>ABRASION</td>
<td>CALLUS</td>
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<td>PUNCTURE WOUND</td>
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</table>

Acute injury: A sudden damage to previously healthy tissue occurs. Abrupt stress on the tissue is the cause of acute injuries, which show symptoms almost immediately. In this case, the idea is that the force applied to the injured tissue (a muscle, tendon, ligament, or bone) is greater than the tissue's strength. Acute injuries are frequently caused by either direct or indirect forces.

Intrinsic Injury
- It is typically caused by an external blow or force.
- It occurs due to collision with another person e.g., during a tackle in rugby or football or being struck with an object e.g., basketball or hockey stick.

Extrinsic Injury
- The actual injury occurs some distance from the impact site e.g., falling on an outstretched hand can result in a dislocated shoulder.
- Its risk factors include inadequate warm-up, muscular imbalance, postural defects, poor technique, overuse, age, etc.

1. Bone fracture: A direct trauma, like a hit, or an indirect trauma, such as a fall on an outstretched hand or a twisting injury, can cause bone fractures. Fractures may be closed, or open (compound), where the bony fragment punctures the skin. It can further be classified into transverse, oblique, spiral or comminuted.

In contact sports like football, rugby, and basketball, bone fractures are frequent. In this, the most commonly fractured bones are of the hands, wrist, collarbone, ankle, feet, and the long bones of the lower extremities.

Clinical features
- Pain, tenderness
- Localized bruising
- Swelling
- Deformity and restriction of movement

Its complications include infections, DVT/pulmonary embolism, associated injury of nerve or vessel, acute compartment syndrome, delayed/mal-union.

2. Periosteal injury: These types of injuries are quietly uncommon, but like fractures they can be extremely painful. The most common examples of periosteal injury are “hip pointer,” which is an injury to the periosteum of the iliac crest caused by a direct blow, and periosteal injury of the tibia resulting from a blow from a kick, stick, or ball.

3. Articular cartilages
Most frequent site: Knee Joint
Most common sports: Soccer

Because they are avascular, articular cartilages have a limited ability to regenerate or repair. The likelihood of healing decreases with the size of the lesion or defect. Diagnosis: If pain and swelling from an ostensibly "simple joint sprain" persists longer than expected then articular cartilage injury can be suspected.

An MRI result might be used for confirmation
If these injuries are not addressed, they may lead to Premature Osteoarthritis of the joint, which can interfere with day-to-day activity. Immobilization is contraindicated, there should be a continuous passive movement of the joint.

4. Joint Dislocation
A dislocation of the joint occurs when an injury causes the articulating surfaces to completely separate from one another. Basketball and football are contact sports that typically cause dislocations.

Sub-luxation
When the articulating surfaces don't fully come into contact with one another, subluxation happens.

5. Ligament
Ligament injuries can range in severity from minor tears of
a few fibres to total ligament tears. One of the most often injured ligaments in sports like football is the Anterior Cruciate Ligament of the knee joint.

Table 1: There are three categories for ligament injury

<table>
<thead>
<tr>
<th>Grades</th>
<th>Features</th>
<th>Management</th>
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<tr>
<td>I</td>
<td>Some stretched fibers but normal range of motion.</td>
<td>Promote tissue healing, Prevent joint stiffness, Strengthen muscle</td>
</tr>
<tr>
<td>II</td>
<td>Increased laxity due to the involvement of some fibres but a definite end point.</td>
<td>Promote tissue healing, Prevent joint stiffness, Strengthen muscle</td>
</tr>
<tr>
<td>III</td>
<td>A complete tear with excessive joint laxity and no firm end point.</td>
<td>Surgical</td>
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6. Muscle Injuries
One of the most frequent injuries in sports is a muscle injury. Sports-related muscle injuries, such as contusions, strains and tears, account for 10% to 55% of all injuries.

a) Muscle Strain
When a muscle's fibers can no longer support the stresses made on it, the muscle is strained or torn. Commonly injured muscles are the quadriceps, gastrocnemius, and hamstrings; all are diarthrodial (cross two joints) and so more prone to injury. Sudden acceleration or deceleration increases the risk of a muscle tearing.

b) Sprain
A sprain is when one or more of your ligaments are stretched, twisted or torn. Sprains often occur in ligaments around joints in the ankle or knee. The joint is not dislocated or fractured. The symptoms of a sprain include:
- Pain
- Inflammation (swelling)
- Bruising, and restricted movement in the affected area.

b) Contusion
In collision sports like football, basketball, and hockey, direct strikes by opponents or solid contact with equipment can cause injuries that result in local bleeding. The most common location of the quadriceps muscle contusion is in front of the thigh; this condition is also referred to as "Cork thigh," "Charley's horse," and "Dead leg."

3. Myositis ossificans
This is an occasional consequence of muscle hematoma that happens when the hematoma calcifies. The highest prevalence is in sports involving heavy contact, such as various football codes. Among the risk factors include bleeding diseases such as Hemophilia. Any muscular contusion that does not go away in a reasonable amount of time should raise suspicion. Areas of calcification may be visible on an X-ray or USG taken 10–15 days after the incident.

4. Cramp/exercise associated muscle cramping
"Spasmodic, painful, and involuntary skeletal muscle contraction that happens during or right after exercise”
The most common site is the Calf Muscles. Changes in neuromuscular control are the cause of it. Excessive excitement causes a cramp when muscles contract continuously.

Dehydration is a prevalent cause. Excessive excitement causes cramps when muscles contract continuously. Passive stretching for 10–20 seconds reduces electromyographic activity, which relieves symptoms.

7. Tendons
Tendon injuries typically happen where there is the least amount of blood supply, such as the Achilles tendon, which is typically 2 cm above the tendon's insertion. Usually in an older athlete without a history of tendon injuries, a tendon rupture happens suddenly. The Achilles tendon and the supraspinatus tendon of the shoulder (rotator cuff) are the two tendon tears that occur most frequently. USG and MRI can be helpful for investigation. Restoring a complete range of motion and function is the major goal of treating tendon injuries.

8. Bursa
The majority of bursa injuries are related to overuse, however on occasion, bleeding into the bursa from a direct fall into it can cause acute traumatic bursitis. Ice and compression are used in the treatment of acute hemorrhagic bursitis.

9. Nerve
Athletes seldom sustain significant nerve injury. However, a few nerves are relatively exposed and vulnerable to harm from a direct strike. For instance, the common peroneal nerve at the fibula's neck and the ulnar nerve in the elbow in baseball and hockey. Certain sports can be linked to certain nerve injuries (radial nerve palsy, for example, with arm wrestling). Tingling, numbness, and pain in the nerve's distribution are examples of clinical features.

Neuropraxia: When a nerve is severely injured, the muscles it innervates will either become paralyzed or feeble.

10. Skin
In contact sports, acute skin injuries are frequent. Abrasions, laceration, or puncture wounds are examples of open wounds.

Overuse injury
Any damage or pain resulting from overuse and repetitive movement is referred to as an overuse injury. Repetitive loading and cumulative activity bouts leads to overuse injuries. Biological tissues subjected to repetitive loading show damage, accumulation and failure that is consistent with a mechanical fatigue process.

Risk factors
a. A rapid increase or change in the load on the bone (rapid change in volume or intensity of training), and
b. An energy imbalance between calories expended and taken in.

The most common overuse injuries include
1. Bone stress fracture
2. Tendon overuse injury/tendinopathy
3. Nerve entrapment syndrome
Fig 1: Bone stress fracture

**Diagnostic features**
1. Localised pain and tenderness over the fracture site.
2. History of a recent change in training or taking up a new activity.
3. X-Ray findings: Normal or Periosteal reaction.
4. Abnormal appearance on MRI, Bone Scan, or C.T Scan.

**2. Tendon overuse injury/tendinopathy**

Tendon overuse injuries cause a significant amount of the workload for sports clinicians. The most typical location, which is the shoulders and elbows, is among basketball players.

**Clinical presentation**
Pain following activity or, more often, upon waking the next morning. At rest, it may be painless, but with continued use, the pain gradually increases. Athletes have the ability to "run through" their discomfort, or it may go away as they warm up and then return as they cool down.

In the early phases of the disease, the athlete is able to resume full training; however, this may impede the healing process. Examining the area reveals thickening or localized tenderness. There may be swelling and crepitus, but crepitus is typically associated with tenosynovitis.

**3. Nerve entrapment syndrome**

Nerve entrapment occurs when nerves are constricted and squeezed. There are several reasons why this happens, ranging from overuse or repetitive activities to trauma or damage. It happens to athletes because of anatomical anomalies or swelling in the soft tissues around them.

**Morton’s neuroma**

It's more of a nerve compression than a real neuroma. This condition is common in cyclist. Due to the repetitive nature of cycling, elevated forefoot forces, and the frequently narrow shape of cycling shoes. A painful disorder that primarily affects the space between third and fourth toes on the ball of the foot.

Standing on a pebble in a shoe or a crease in sock is the sensation associated with Morton’s neuroma.

**Common terms in sports injury**

1. **knockout**
The phrase is typically used to describe an abrupt, horrific loss of consciousness brought on by a physical hit. A single, strong hit to the head can result in a traumatic brain injury, a carotid sinus reflex with syncope, or a quick, spectacular loss of consciousness.

2. **Punch syndrome**
Punch syndrome, associated with recurrent head concussions and observed in boxers and drinkers, characterises lower limb weakness, unsteadiness in walking, slowness in muscle movements, hand tremors, reluctance to speak, and mental dullness.

3. **Weight Lifter Blackout**

Numerous conditions that impede blood flow to the brain can be the cause of blacking out during exercise. Dehydration, or not having enough fluids in the body, can cause blood pressure to drop and cause blackouts, particularly when you perspire a lot. Orthostatic hypotension is most frequently caused by dehydration.

4. **Runner’s Knee**
The term “runner’s knee” refers to a condition commonly experienced by runners. It can also affect athletes who engage in activities requiring a lot of knees bending, such as walking, biking, and jumping. It hurts so bad that it hurts the kneecap area.

5. **Jumper’s Knee**

Jumper's knee, often referred to as patellar tendinopathy or tendinitis, is an inflammation or injury of the tendon that connects the tibia (shin bone) to the patella (kneecap). This common overuse ailment occurs among athletes who participate in sports requiring a lot of repetitive leaping, such as track and field (especially high-jumping), basketball, volleyball, gymnastics, running, soccer, etc.

6. **Javelin Throwers Elbow**
The throwing motion in this game compresses the lateral side of the elbow while simultaneously stretching the medial
side of the elbow bone.
If left untreated, this damage may place so much strain on the muscles and nerves that it may stop blood flow and compress the nerves that control the forearm's muscles.
Overuse is by far the most frequent cause of thrower’s elbow.

7. Stitch At Side
Side stiches are diaphragam muscle spasms that might happen sometimes during prolonged exercise.
The right side, just below the ribcage, is where most individuals get stiches. A brief, acute pain under the bottom of the rib cage that happens during exertion and goes away as it stops.
Although the existence of numerous theories, some experts believe that stitches arise from a diaphragmatic cramp, possibly as a result of the rapid breathing and increased strain on the abdominal muscles while running, which causes the lungs to expand. As the exercise continues, this ache gradually goes away.

8. Shoulder impingement syndrome (swimmer’s shoulder)
It happens when tendons from the shoulder bones rub against one another. It is associated with overhead shoulder action, particularly repetitive exercise. It frequently causes pain in the shoulder. Painting, lifting, swimming, tennis, and other overhead sports are a few examples. Pain from impingement syndrome is chronic and interferes with day-to-day functioning. Reaching up above or behind oneself to put on a coat or blouse, for instance, can cause pain.
Conservative care consists of physical therapy, rest, and stopping uncomfortable activities.

9. Mallet finger
A mallet finger is a malformation of the finger resulting from damage to the extensor tendon, which straightens your finger. The tendon that straightens a finger is torn when a ball or other item forcefully impacts the tip of the finger or thumb.
The blow's force may potentially tear the tendon and a fragment of bone away. Due to its inability to straighten on its own, the fingertips of a mallet finger droops. The finger may hurt, swell, and bruise, especially if there's a fracture involved. But the inability to straighten the tip is frequently the main symptom.

10. Turf toe
A sprain of the ligaments surrounding the big toe joint is commonly referred to as “turf toe.” While football players who play on artificial turf are frequently linked to it, athletes from other sports, such as soccer, basketball, wrestling, gymnastics, and dance, are also impacted. Continuously forcing the big toe off with force when sprinting or jumping, or jamming the big toe, brings on the condition.

General management
1. Contusion
   - Minimization of swelling
   - Minimization of bleeding
   - Stretching and strengthening
   - Avoid- Heat. Alcohol and Vigorous massage after contusions as they increase the bleeding.

2. Open wound
   A) Stop bleeding
      Apply a pressure bandage
      Elevate the affected part
      If the wound is open and clean, bring the edges together (contraindicated if contaminated)

   B) Prevent infection
      Remove dirt through simple irrigation with saline solution. If severely contaminated take medicines.

   C) Immobilization
      Immobilisation is done when the wound is over a constantly moving part. For example, the anterior aspect of the knee. Certain lacerations such as pretilial lacerations, require strict immobilization to ensure proper healing. It is contraindicated in articular cartilage injury as it has a detrimental effect.

   D) Tetanus STATUS

3. Muscle Strain
   Initial ice and compression.
   A brief period of immobility (limited to the initial few days following the accident and based on severity) early range-of-motion exercises and mild mobilization (adjust according to severity and pain thresholds; stay away from forceful stretching methods) early, light massage of the injured muscle (depending on severity, massage may be best avoided for the first 24-48 hours).
   Accurate evaluation of severity is crucial because, in severe situations, early mobilization may result in re-rupture at the site of the initial muscle damage. Re-rupture causes a significant amount of time lost from sports.

Price procedure for management of minor soft tissue injuries[6]
At-home care is possible for the majority of mild soft tissue injuries. After your accident, you should adhere to the PRICE method for the first two to three days.
1. Protect - Protect your injury from further damage, for example, by using a support or splint.
2. Rest - Take a break from using the injured area for the initial two to three days. If your leg is injured and you still need to move around, utilize crutches. Afterward, gradually reintroduce movement to prevent muscle strength loss and avoid delaying your recovery.
3. Ice- To assist minimise swelling and bruising, apply a cold compress to the painful area, such as ice or a bag of frozen peas wrapped in a towel. Every two to three hours, spend 15 to 20 minutes doing this. Applying it straight to your skin could cause injury.
4. Compress- To help reduce swelling and mobility, compress the damaged region with an elastic bandage or an elasticated tube bandage. However, don't sleep with the bandage on.
5. Elevate- Rest your injury higher than your heart's level and provide support for it. If you've hurt your leg, this can entail lying on the couch with your foot resting on some cushions.

Physiotherapy [7]
The World Confederation for Physical Therapy (WCHPT) defines physiotherapy as the branch of medicine that works to maximize a person's range of motion and functional
capacity over the course of their lifetime. According to a physiotherapist, a person’s ability to move freely is crucial to their health. Physiotherapy is an alternative if there is discomfort and limited movement. A physiotherapist may recommend traction, heat therapy, massage, stretches, exercises, TENS (transcutaneous electrical nerve stimulation), or any combination of these to relieve muscle tenancy or immobility.

**Prevention of sports injuries**

a. **Warm up**: Warming up is the most crucial and important step in reducing the risk of injury when participating in sports.

b. **Stretching and mild exercise**: Should be included in a solid five-to-ten-minute warm-up to prepare the muscles for the heavy labour that lies ahead. Steady walking and jogging are the ideal warm-up exercises.

c. **Correct Equipment**: Shin guards (worn in hockey and football), boxing gloves, and protective headgear are types of protective equipment designed to prevent injury to the most vulnerable areas.

d. **Technique**: Mastering the correct techniques for your chosen sport is essential. Proper form can greatly reduce the risk of sports-related injuries to muscles, tendons and bones.

e. **Remain Hydrated**: Water is vital when we are exercising and staying active. When exercising in hot or sunny weather, it’s imperative to stay hydrated because dehydration can have a detrimental effect on one’s physical and emotional well-being.

f. **Cool Down**: It’s crucial to adequately warm up before physical activity and to cool down appropriately afterwards. In order to restore heart rate back to normal after working out, spend at least five to ten minutes doing a little workout (like walking).

g. **Do Not Over Reach Yourself**: Listening to your body and acknowledging your physical boundaries during physical activities is vital. When starting a new sport, approach it with caution and intention to avoid straining or pulling muscles unaccustomed to the activity. It’s essential to gradually build strength and endurance, particularly if you’ve been inactive for some time, to mitigate the risk of injury.

**Homoeopathic Approach**

**In The Organon Of Medicine, Fifth Edition**

Aphorism 186, Hahnemann states that “…For in the cases of injuries accruing to the body from without, …The treatment of such diseases is relegated to surgery; but this is right only in so far as the affected parts require mechanical aid, whereby the external obstacles to cure, may be removed by mechanical aid, e.g., by the reduction of dislocations…by bringing into apposition the broken extremities of a fractured bone and retaining them in exact contact by an appropriate bandage, etc. But when in such injuries the whole living organism requires, as it always does, active dynamic aid to put it in a position to accomplish the work of healing…then the services of the dynamic physician and his helpful homoeopathy comes into requisition.”

**Kent’s View**

Treat symptoms stemming from internal causes with internal remedies, and address symptoms resulting from external causes by applying local treatments. Utilize local remedies for local issues and internal remedies for internal or dynamic causes…When the constitutional state is in order and there is an open injury let the constitution alone, but put on some soothing application externally. In doing, this there is no law to govern the action of the physician… …But if the condition does not heal, it indicates an underlying constitutional issue that needs to be identified and treated. At that point, local treatment should be stopped…

**P. Schmidt View**

After manipulation, if necessary, in cases of sprains, Homoeopathy provides a wide range of valuable remedies that significantly shorten recovery time and alleviate pain. Distention of the muscles or tendons of the hand or foot, with or without injury of the periosteum and the bones, can be relieved and often cured in record time after putting them back in position by rubbing with oil of Rhus or tincture of Arnica and bandaging tightly; after this one should administer a so-called trauma remedy.…

**Homoeopathic Therapeutics**

1. **Arnica montana**
   - The traumatic par excellence.
   - Short acting (6 days) but PROMPT.
   - Symptoms present in all injuries resulting from severe contusions and lacerations of the fibers.
   - Injuries of the Muscles, fractures of the bones, contusion of the periosteum and external hemorrhage due to mechanical injuries.
   - Pyaemic Prophylactic.
   - Septic conditions, prophylactic for purulent infections.
   - In cases of severe and extensive contusion injuries, recovery is greatly enhanced when, alongside a small dose of Arnica taken internally (one dose every 3 hours), the affected areas are externally moistened with wine or a mixture of equal parts of brandy and water during the first twenty-four hours. For this external application, mix 5-10 drops of Arnica in the hundred-fold potentized dilution with one pound of either solution, then vigorously shake the mixture 10 times.
   - Should not be used externally where there is broken skin.

2. **Agaricus muscarious**
   It is indicated in Coup De Fouet. This is an excruciating pain in the calves which runners get and it is a great handicap to them. It especially happens after excessive training.

3. **Bellis perennis**
   - Allies in action with its fellow Compositae, Arnica and Calendula.
   - The primary remedy for injuries to deeper tissues after major surgical work.
   - An excellent remedy for sprains and bruises.
   - Indicated for injuries to nerves with intense sorenness and intolerance to cold bathing.
   - Railway spine.
   - Effective for severe and dangerous conditions resulting from drinking something very cold when the body is overheated.
4. **Byronia Alba**
Helpful for bursitis cases where the entire joint capsule is involved and intensely painful with even the slightest movement. The affected structures are stiff and painful, worsening with any motion and improving with complete rest.

5. **Calendula Officinalis**
- Suitable for lacerated and suppuring wounds, it acts as a homoeopathic antiseptic.
- Promotes healthy granulations and rapid healing by first intention.
- Jahr, treated a number of cases of gun-shot wounds with comminuted fractures, and saved several limbs by Calendula.
- Hot Calendula lotions are generally preferable to cold, as they conserve the vitality of the injured parts.
- Apply in a ratio 1:6 with water, as the tincture will smart too much.

6. **Hypericum perforatum**
- It is called as the Arnica of the Nerves.
- Acts in injuries to nerves and parts that are rich in nerves, as the ends of fingers and toes, or in open wounds that are exceedingly painful.
- Great nervous depression from the loss of blood from lacerated wounds.
- Used locally as tincture and water in the ratio 1:4 in hot water.
- Soother of pain after surgical operations more effective than morphia.
- Has led to cures in conditions and accidents accompanied by the sensation of "being lifted high into the air."

5. **Rhus toxicodendron**
- A specific remedy for the often-fatal consequences of overexertion, excessive muscle strain, and bruises.
- A/F Straining a single part, muscle or tendon.
- The most intense symptoms and pain occur when the body or limb is at rest and immobile.

6. **Ledum palustre**
- Punctured wounds, or wounds that are highly sensitive to touch.
- Ledum is an extremely chilly remedy, with pains that is alleviated by cold.
- Stiffness of all the joints: could only move them after applying cold water.
- Just like Arsenic has burnings relieved by heat, so Ledum has coldness relieved by cold.
- Indicated in cases of black eye that is relieved by cold water application.

7. **Ruta graveolens**
- Complaints from straining, especially the flexor tendons.
- Periosteum injuries, such as sprains, particularly to the wrist and ankle.
- Ruta resembles Rhus, but more so. Unlike any other drug, it is particularly effective for periosteal issues resulting from injury. This includes conditions where lumps persist in the periosteum, causing soreness and slow healing. Bruises may lead to the formation of hardened masses in tendons, especially after gripping or clapping, such as with hands, resulting in gradual flexure contraction until the hands are permanently flexed.
- The feet contract and become so flexed that the sole becomes concave and the toes are drawn underneath.

8. **Symphytum**
- Useful in traumatic injuries of bone or periosteum.
- After the bones or periosteum have been injured and the soft tissues have healed from the bruised soreness under Arnica, Symphytum can promptly alleviate the remaining pain and soreness of the periosteum.
- Facilitates union of fractured bones; lessens peculiar prickling pain; favors production of callous; when trouble is of nervous origin.
- Bad effects from blows, bruises, thrusts on the eye.

9. **Strontium carbonicum**
- Chronic Sprains, particularly of the ankle joint when oedema exists.
- External soreness is a note of Strontium carb.
- It especially affects the femur.
- Remarkable remedy indicated by Hering. 10M potency works beautifully.

10. **Natrwm sulphuricum**
- Head symptoms from injuries to the head, mental problems therefrom.
- Chronic effects of injuries to the skull—not fractures, but rather straightforward concussions brought on by a significant shock and wounds devoid of organic affections.
- Arnica for neuralgia after injuries but Natrum sulph. is for the mental troubles coming on from a jar or a fall or an injury about the head.

**Examples From The Past** [20, 21]
A/F Straining an ankle and the foot, after the breaking of a bone. Both aches very much after walking. Bruises may lead to the formation of hardened masses in tendons, especially after gripping or clapping, such as with hands, resulting in gradual flexure contraction until the hands are permanently flexed.

**Conclusion**
A Science progresses when it finds its application in various other fields, just like we can see nowadays that homoeopathy is being applied in Agrosciences, Veterinary sciences, etc.
Sports medicine is also such a branch where Homeopathic Remedies have proved to be efficacious not only in treating...
sports persons in pain but also in improving their overall performance and endurance capabilities. Also, conventional medicines and pain killers pose serious side effects on the athlete’s overall health. Hence, it is concluded that homeopathy can be effectively utilized to supplement, or in certain instances, substitute current methods of treating sports-related conditions.

Conflict of Interest
Not available

Financial Support
Not available

References

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