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IMPA NEWS

THE OFFICIAL NEWS LETTER OF THE INDEPENDENT MEDICAL PRACTITIONERS ASSOCIATION

IMPA News

A very successful medical update programme on "Vascular Risk in Dementia" by Prof. Asita De Silva, Senior Professor of Pharmacology and a presentation by CurisOne Pvt Ltd on the Mobile "DocOnCall App" was held on Sunday 24th June 2018 at the OPA Auditorium.

The IMPA 2018 Directory of Members was released at the council meeting before the Medical Update Programme on Sunday 24th June 2018. Your copy of the Directory could be obtained from the IMPA office.

The Bambalapitiya Alcoholics Anonymous Group of Sri Lanka has organized a seminar (round - Up event) in collaboration with the Alcoholics Anonymous Group of Singapore to "Carry the message of Alcoholics Anonymous" on Saturday 18th August 2018 at the Community Hall, Milagiriya Church, Bambalapitiya from 9.00 am to 4.00 pm. Local and Foreign speakers including medical professionals will share their experiences of recovery from alcoholism. Five IMPA members have been invited for this event. Any IMPA member interested in participating in this event is requested to inform the IMPA administration officer, Mrs.Champa Silva.

IMPA members are requested to forward articles to be included in the 2018 IMPA Journal which is due to be released at the AGM to be held in December 2018.

Prof. Wilfred Perera, a senior member of the IMPA celebrated his 90th birthday on 15th June 2018. The IMPA wishes him the very best for the future.

Review Article

MANAGEMENT OF ACUTE AND CHRONIC TENDON INJURIES

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Introduction:

Ligament and tendon injuries are common among all age limits: from children to the elderly. With modern day high active and demanding lifestyles and health conscious behaviour more and more people engage in exercises, gymnasium workouts and active sports. The elderly too have a high demanding and active lifestyles, which involve many travelling living in high-rise buildings and light exercises such as walking and jogging.

Pathogenesis and mechanism of injury:

Mechanism of tendon injuries can differ from direct to indirect, pulling to over stretching, twisting injuries, crushing to cutting injuries and partial to total tears. Depending on the mechanism of injury

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and the anatomical group of muscles they can be further classified to flexor, extensor, abductor and adductor injuries. Prognostically and treatment too differs depending on mechanism of injury, position of muscle, activity of patient and duration from injury to treatment.[1] Therefore understanding the mechanism, localising the group or single isolated tendon involved, pre existing tendinitis or tendinopathy prior to injury, physical demand of the patient, high demand professional sportsman to daily and routine working person or general relaxed and retired life style are all important information that needs to be elicited in the history in order to understand treat and manage these injuries.

Initial examination:

Initial detail examination is difficult due to pain and swelling and is not essential in most cases as the management principles are the same except in specific mechanism such as cut injuries that and open injuries that will require surgical intervention. Therefore it is important to initially manage them on principles of RICE (Vide infra) and re examine within 1- 2 weeks once pain and swelling subsides to make a definite diagnosis.

Once the swelling and pain subsides a detail examination is to be carried out aiming and localising the tendon or group of tendons degree of injury partial or total, and mechanism of tear crush or avulsion etc. During this period if needed EUA (Examination under anaesthesia) should be considered.

Investigating and diagnosing tendon injuries:

Plane X rays rarely play a role in diagnosing tendon injuries as it only show bone clearly in musculoskeletal imaging. However it may play a role in ruling out fractures and diagnosing avulsions that take a bone chip along with a tendon. It also helps in diagnosing pre existing tendinopathies and calcified tendons.

Two key investigative tools are the USS (Ultra sound scan) and the MRI (Magnetic Resonance Imaging)[2] USS has the advantage of dynamic assessment and cheaper to perform with the disadvantage of user variability, while the MRI has high accuracy rate [3]with ability save images and with limited use in dynamic assessment and cost being its disadvantages. In a low resource setting such as Sri Lanka availability is an added limiting factor. Nevertheless MRI scan is an important tool in not only in diagnosing but also acting as a road map for the surgeon to treat the injury. CT scan does not play a major role unless there are associated bony injuries. Other modalities such as bone scans does not play a role in an acute setting but are useful in detecting chronic injuries, assessing healing and diagnosing other tendon pathology such as tendinitis and tendinopathies.

Initial principles of management:

It is important for an initial referral to an expert to diagnose and outline a treatment plan as wrong diagnosis can lead to delay in healing and chronic inflammation and partial healing of the tendon.
Acute management involve ***RICE***

R: Rest
I: Ice
C: Compression
E: Elevation

This should be done for period of 7-10 days and then re examined in detail by an expert to diagnose and plan out the long term and definite management.

However the duration RICE should be managed is debatable with most agreeing between 7- 21 days
.

Definitive and specific management:[4]

This depends very much on multiple factors mentioned above.[5] High demand sports injuries such as foot ballers will have a different management plan than a low demand person, as they need to heel fast recover and return to sports as soon as possible functioning in an optimal level.[6] However basic principles appear to be same in all groups.

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Open and cut injuries will need surgical intervention with wound debridement tendon repair and splintage. Following initial management with RICE closed injuries should be managed with a definite period of immobilisation using splints followed by a strict rehabilitation protocol involving gradual stretching, muscle strengthening, with supportive treatment such as LIPUS (Low Intensity Pulsed Ultrasound)

1. Immobilisation using splints or plaster
2. Taping the tendons injuries kinesio and other methods[7,8]
3. Active and passive stretching
4. NSAID and other pain medication
5. Local anaesthetic treatment
6. Other modalities

Chronic tendon injuries

Initial management of all injuries are the same. However chronic tendon injures can lead to tendinitis and tendinopathy and requires special attention.

Principles of chronic tendon injuries are pain control, achieve healing and rehabilitation to improve function of the affected tendon.

1. Pain control:

a. NSAID play a crucial role but

Childress, and Beutler,[9] reports that Non-steroidal anti-inflammatory drugs should be limited in the treatment of these injuries.

b. Corticosteroid injections can be considered for pain relief but depend s on the site as it is contraindicated in Achilles tendinitis and but is effective in rotator cuff tendinopathy. For chronic

2. Achieve function

Active and passive stretching exercises followed by rest and splinting is another key method of treating chronic tendinitis. This works well in Achilles tendinopathy. Eccentric strengthening program of the gastrocnemius/soleus complex improves pain and function between 60 and 90 % in randomized trials.[9] This appears to work well in chronic patellar tendon injuries as well. [10] Muscle strengthening and strict rehabilitation protocol will help to regain function early resting for too long.

3. Improve healing

a. Diet and life style changes to improve healing multi disciplinary approach should be aimed at. Correct nutrition and heavy activity cessation of smoking control of diabetes and other diseases control of rheumatological conditions are all important.

b. Platelet rich plasma (PRP) therapy

There is multilevel evidence to support PRP has a role in treating chronic tendinopathy. [11,12] However evidence is weak at present and detailed ranmosed control trials are needed to find out the true effect of these therapies. There is unequivocal evidence with PRP injections in treating chronic lateral epicondylitis[13] and Achilles tendinitis [14] Newer modalities such as stem cells have been tried to achieve healing with less convincing evidence.

c. Other modalities such as topical nitro-glycerine, therapeutic ultrasound, extracorporeal shock wave therapy, and low-level laser therapy have less evidence of effectiveness. However these can be used as alternatives for surgery.[9]

4. Role of surgery in managing tendon injuries

Surgery plays a key role in acute tendon injuries mainly following trauma where as surgical repair is indicated. Most tendons can be directly repaired. However in case of crush injuries and loss of tissues then tendon grafting is preferred over a direct repair. In chronic conditions such as

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Most common specific tendinopathy and outline of management is given in the table1

Tendinopathy	Management outline
1. Rotator cuff tendinopathy	Steroid injection, NSAID and physiotherapy
2. Lateral epicondylitis	Steroid injection, physiotherapy, splinting Surgery in resistant cases PRP may be helpful
3. Patella tendinopathy	Stretching exercises, Quadriceps Strengthening Surgery
4. Achilles tendinitis	Eccentric Exercise Protocol, NSAIDS short term Steroid injections contra indicated

Table 1. Key management modalities in four commonest tendinopathy

tendinopathy surgical role is limited. Still a non-functioning painful chronically inflamed tendon can be considered for excision and replaced with a graft.

Conclusion:

Acute tendon injuries and chronic tendinopathy are common and needs specific attention. Initial correct diagnosis and proper rehab planning is key to a successful outcome. It requires a multi team effort with a orthopaedics, sports medicine physiotherapy, dietician and many other supportive network.

It also requires commitment and dedication from the patient and realistic goals and expectations given by the surgeon at the initial consultation. Even though surgery plays a higher role in acute injuries and lesser role in chronic tendinopathy referral to a surgeon should be made early in both conditions as timing for surgical intervention is key for successful outcome.

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NON - ALCOHOLIC FATTY LIVER DISEASE

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Non-alcoholic fatty liver disease (NAFLD) is defined as hepatic steatosis detected either on imaging or histology, in the absence of secondary causes. It consists of a spectrum of diseases ranging from non-alcoholic fatty liver (NAFL) (i.e. fat deposition without inflammation or hepatocellular injury), to non-alcoholic steatohepatitis (NASH) (i.e. fat deposition with inflammation and hepatocellular injury) to cirrhosis.

Global prevalence of NAFLD in adults ranges from 6 - 33% depending on the population studied. In the paediatric age group this ranges from 0.7 - 17.3%. In Sri Lanka, the prevalence of NAFLD was 32.6% in an adult urban population and 18% in an adult rural population.

Natural history also is a spectrum from NAFL with no increase in liver related mortality to NASH with a 9% risk of liver related mortality. NAFLD in both forms, has increased overall mortality, most commonly from cardiovascular disease and cancer due to the associated metabolic risk factors.

Risk factors for NAFLD consists of physical inactivity, excess caloric intake, obesity, type 2 diabetes mellitus, dyslipidaemia, metabolic syndrome and some genetic factors.

In the liver tests, a patient with NAFLD will have isolated elevation of transaminases (and sometimes gamma GT) with ALT > AST. During the assessment it is important to exclude secondary causes for hepatic steatosis such as alcohol, hepatitis C, Wilson's disease and to screen for metabolic risk factors. The presence of liver fibrosis which would adversely affect the prognosis, can be deduced from clinical prediction rules (e.g. NAFLD Fibrosis Score), imaging (e.g. Transient elastography), non-invasive biomarkers or liver biopsy.

Treatment options available for NAFLD can be broadly categorized into two groups: life style measures and pharmacological therapies. The decision to commence a NAFLD patient on pharmacological therapy will depend on the presence of steatohepatitis, the only means of diagnosing which, is a liver biopsy. As patients with NAFL have excellent prognosis from a liver point of view, they require only life style measures. Patients with NASH on the other hand, require pharmacological therapies in addition to the life style measures, since they have increased liver-related morbidity and mortality.

Life style measures aimed at correcting the associated metabolic syndrome which are backed by good levels of evidence are, weight loss, healthy eating with dietary restrictions, increasing physical activity and avoiding unsafe levels of alcohol. Reduction in hepatic steatosis has been found to occur when a 3-5% weight loss occurs, but improvement in hepatic necroinflammation requires a weight loss up to 10%. A target BMI of <23 kg/m2 and waist circumference of <90cm for men and <80cm for women, is recommended for Asians. Improvement with weight loss is also seen even in normal weight patients. Weight loss can be achieved by consuming a hypocaloric diet, increased physical activity, drugs like orlistat or bariatric surgery. Patients should be advised to follow a calorie-restricted diet, aiming to lose 0.5 kg per week until they achieve their target weight. General recommendations are for a diet avoiding saturated fats, simple carbohydrates and sweetened drinks, and an emphasis on increasing the intake of fruits and vegetables. Dietician input is also valuable in NAFLD patients. Exercise has been found to improve hepatic steatosis even in the absence of weight loss. ≥200 minutes of moderate physical activity per week (40-50 minutes 5 times per week) is recommended. Many patients with NAFLD find it difficult to comply with these recommendations and using pedometers and aiming for >10,000 steps per day can be useful. Patients with NAFLD should not consume alcohol beyond the safe limit.

Pharmacotherapies with good levels of evidence include vitamin E, thiazolidinediones and coffee consumption. Liraglutide may be used in obese diabetics. Two other drugs which are showing promise are obeticholic acid and elafibranor. Metformin, probiotics, statins and omega-3 fatty acids are not recommended as specific treatments in NAFLD, although they can be used for their specific indications in a patient having NAFLD. Out of the pharmacological measures the best evidence

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is available for vitamin E, which is considered the first-line pharmacotherapy for non-diabetic adult patients with biopsy-proven NASH without cirrhosis. It is administered at a dose of 800 mg/d. Some concerns with vitamin E are the potential increase in haemorrhagic strokes, prostate cancers and whether it increases the all-cause mortality. Generally vitamin E is stopped after about 2 years of use. Pioglitazone is recommended in patients with biopsy-proven NASH irrespective of diabetic status. There are concerns with this also - increased risk of bladder carcinoma, bone loss and cardiac failure. There is good evidence that coffee consumption can reduce the inflammation, and importantly the fibrosis, in patients with NASH. The effective dose has been shown to be 2-3 cups of unsweetened coffee daily.

In all patients with NAFLD, management of the associated metabolic risk factors such as type 2 diabetes mellitus (T2DM), hypertension (HT) and dyslipidaemia is vital. Metformin is recommended as the first-line pharmacological therapy for T2DM in NASH, since it aids weight loss, has cardiovascular benefits. Pioglitazone is the preferred second-line agent in subjects with NASH. For obese patients, GLP-1 analogues (liraglutide) may be considered as a third-line agent. Statins are considered the first-line agent for treating hypercholesterolemia in NAFLD. Statins are safe to use in patients with NAFLD with elevated transaminases, and routine liver enzyme monitoring is not warranted in this population. Angiotensin receptor blockers are the antihypertensive agents of choice for hypertensive patients with NASH.

OBITUARY

It is with deep regret that the IMPA announces the demise of
Senior IMPA members Dr. G.R.A. Rajapakse
and Dr. G.V. Ratnam (son of founder IMPA President)

Copy of the letter sent by the IMPA to Prof Lalitha Mendis, Chairperson of the Committee to study the introduction of influenza vaccine to the National Programme of Immunization

Dear Madam,

At the IMPA council meeting held on Sunday 24th June 2018 it was decided to request the Ministry of Health to introduce the influenza vaccine to the National Immunization Programme in a phased out manner.

This decision was made by the IMPA council on account of the epidemic experienced in Sri Lanka in 2017 in which several maternal deaths occurred and the epidemic in 2018 accounting for several deaths in children below two years.

The IMPA council was also of the view that in all communications the Ministry of Health should inform the public that the vaccine is available in the private sector and recommends vaccination to all high risk individuals in Sri Lanka.

As such, I on behalf of the IMPA request you to expedite this matter for the betterment of the health related aspects of all citizens of Sri Lanka.

A favourable response will be much appreciated.

Thanking you,
Yours Sincerely,

Dr. A.H.A. Hazari
President
IMPA

Cc - Dr. Anil Jasinghe, Director General of Health Services

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