3rd ISWIRAP
THE 3rd INTERNATIONAL SYMPOSIUM IN SCIENTIFIC WRITING AND PUBLICATION

VOLUME 7, NUMBER 2, MAY-AUGUST 2018
Print-ISSN: 2089-1180
E-ISSN: 2302-2914

BALI MEDICAL JOURNAL (BMJ)

PUBLISH BY: SANGLAH GENERAH HOSPITAL IN COLLABORATION TO INDONESIAN PHYSICIAN FORUM AND INDONESIAN COLLEGE OF SURGEON, BALI-INDONESIA
The 3rd International Symposium in Scientific Writing and Publication Meeting

Ida Bagus Putra Adnyana

ABSTRACT

Background: To enhance the publication of all researcher in the indexed international scientific journal (in term of quantity and quality), The Doctoral Program of Medicine Science, Faculty of Medicine, Udayana University will hold The 3rd Iswirap with theme "How to Publish a Good International Scientific Article". This workshop aims to assist in the development of the skill needed to write and submit scientific article with the ultimate goal of improving the dissemination of research and enhancing the knowledge sharing. Technical training article clinic will be provided to successfully published a scientific article.

Method: The study involved 2 groups of women aged 27-35 years (mean age 30.8 ± 2.1 years). Each group consisted of 25 women with a diagnosis confirmed at least 3 years ago by the VSD. In the first group of women, rehabilitation was carried out according to the author's method. In the second group the traditional scheme of rehabilitation is applied. In both groups, rehabilitation activities lasted for 6 months. Functional tests are applied in the work. The evaluation of the results was carried out by Student's t-test.

Result: The author's complex of rehabilitation measures proved to be very effective in this category, including a rational diet, therapeutic gymnastics, electrostimulation, massage and hydrotherapy. Its effectiveness was proved by a comparative analysis of the results obtained with the application of this set of results and the results of applying traditional rehabilitation techniques. The complex of rehabilitation measures developed by the authors was able to provide the most complete restoration of the physical condition of women with vegetovascular dystonia by achieving a balance between the activator and inhibitory processes in the central nervous system and the optimal tone of their vessels. As a result of its use in women with vegetovascular dystonia marked improvement in the process of hemodynamics with an increase in their resistance to hypoxia.

Conclusion: The carried out researches have proved that the author's version of rehabilitation of women with vegetative dystonia is capable of completely eliminating somatic manifestations accompanying vegetative vascular dystonia and increasing the adaptive capabilities of their organism in everyday life.

Keyword: scientific publication, iswirap, research

Physical Rehabilitation of Middle-Aged Women with Vegeto-Vascular Dystonia

Shmeleva S.V.1, Latushkina E.N.2, Scheglova A.S.1, Dubrovinskaya E.I.1, Romanova A.V.1, Dushevin G.R.1

ABSTRACT

Introduction: Vegetosovascular dystonia is often a common condition in women. Its manifestations exert a weakening influence on the central nervous system and the body as a whole. This is due to the weakening of blood flow, a decrease in the effectiveness of respiratory and anabolic processes throughout the body. With insufficient effect from medical effects in vegetovascular dystonia, the level of viability of the organism inevitably decreases. Therefore, there is a need to improve the rehabilitation approaches used in vegetovascular dystonia in women for the maximum possible recovery.

Method: The study involved 2 groups of women aged 27-35 years (mean age 30.8 ± 2.1 years). Each group consisted of 25 women with a diagnosis confirmed at least 3 years ago by the VSD. In the first group of women, rehabilitation was carried out according to the author's method. In the second group the traditional scheme of rehabilitation is applied. In both groups, rehabilitation activities lasted for 6 months. Functional tests are applied in the work. The evaluation of the results was carried out by Student's t-test.

Result: The author's complex of rehabilitation measures proved to be very effective in this category, including a rational diet, therapeutic gymnastics, electrostimulation, massage and hydrotherapy. Its effectiveness was proved by a comparative analysis of the results obtained with the application of this set of results and the results of applying traditional rehabilitation techniques. The complex of rehabilitation measures developed by the authors was able to provide the most complete restoration of the physical condition of women with vegetovascular dystonia by achieving a balance between the activator and inhibitory processes in the central nervous system and the optimal tone of their vessels. As a result of its use in women with vegetovascular dystonia marked improvement in the process of hemodynamics with an increase in their resistance to hypoxia.

Conclusion: The carried out researches have proved that the author's version of rehabilitation of women with vegetative dystonia is capable of completely eliminating somatic manifestations accompanying vegetative vascular dystonia and increasing the adaptive capabilities of their organism in everyday life.

Keyword: women, average age, vegetovascular dystonia, rehabilitation.

Received: 2017-11-11
Accepted: 2018-11-21
Published: 2018-5-1

Open access: www.balimedicaljournal.org and ojs.unud.ac.id/index.php/bmj
Enhanced Cell Cytotoxicity of Lung Cancer Cell Line by Peg-Folate Targeted Human Serum Albumin Cabazitaxel Loaded Nanoparticles

Mohsen Ebrahimi, Babak Paknejad, Mohammad Kazem Khoeinyha

ABSTRACT

Introduction: Various factors can cause lung cancer, like life style and chemicals. It is well established that gases, which are used as the weapon can cause lung cancer, even in the short period and low amount exposure. Taxane family members are used to treat cancers like lung cancer. Cabazitaxel, which approved by USFDA for prostate cancer treatment in 2010, is in clinical trial for lung cancer treatment. Cabazitaxel low solubility in water is the cause of Tween 80 usage in its formulation. Tween 80 causes hypersensitivity reaction. In this study to have targeted delivery of Cabazitaxel and to remove tween 80 from this formulation, Cabazitaxel loaded Folate-Polyethylene glycol- Albumin nanoparticles was prepared.

Method: Synthesis of Folate- Polyethylene glycol and conjugation to human serum albumin accuracy established by H-NMR, GPC and UV analysis. nab-technology was applied to load Cabazitaxel in the nanoparticles. HPLC, DLS and SEM analysis applied to assess drug content and drug release and study size and shape of nanoparticles, respectively. Cell cytotoxicity was studied on A549 and MDA-MB231 cell lines. Confocal microscopy was used to show the nanoparticles cell uptake.

Results: The size of nanoparticles, 150 nm, provides passive targeting by EPR phenomenon. About 83% of Cabazitaxel was loaded in nanoparticles and about 80% was not released from nanoparticles in 72 hrs. The uniformity of nanoparticles identified by SEM photography. The cell cytotoxicity of targeted, non-targeted nanoparticles and free Cabazitaxel evaluated against MDA-MB-231 and A549 cell lines as the folate positive and folate negative cell lines, respectively. Eventually, confocal microscopy imaging indicated the cellular uptake of targeted nanoparticles by folate positive cell line.

Conclusion: These findings show this drug delivery system is able to improve efficiency and decreases side effects of conventional formulation, effectively.

Keyword: cabazitaxel, nab-technology, active and passive targeting, folate receptor targeted nanoparticles, human serum albumin.

Effect of Vitamin D3 Injection on Muscle Mass in Sepsis

Ebrahim Hazrati, Sina Asadi

ABSTRACT

Introduction: Sepsis in ICU patients leads to loss of muscle in various parts of the body and problems such as prolongation of ventilation in patients with intubation due to weakness of the respiratory muscles, followed by an increased risk of disease infections associated with ventilator, including VAP. The purpose of this study was to determine the effect of vitamin D3 use in patients with sepsis admitted to intensive care units and its impact on muscle tissue loss during the course of the disease and its subsequent implications.

Method: In this single-blind randomized control clinical trial, 40 patients with sepsis who were admitted to Artesh ICU for more than two weeks were selected. The Sarcopenia index (SI) levels of these patients were measured based on serum creatinine and Cystatin-c levels. Then, the patients were randomly divided into intervention and control groups. Patients in the intervention group received a single dose of VitD3 intramuscular injection of 300,000 units and the control group received no injections. After 10 days, the Sarcopenia index was measured in both groups.

Results: After analyzing data with repeated measurement ANOVA, using SPSS software, the results showed that SI in both groups significantly decreased with time (P <0.005). However, no significant difference was observed between the two groups in the reduction of SI (P> 0.05).

Conclusion: Vitamin D3 injections do not have any effect on the improvement of muscle weakness in patients in the intensive care unit.

Keyword: vitamin D3, intensive care unit, sarcopenia index (SI), sepsis.
Clinical Uses and Toxicity of Atropa Belladonna; an Evidence Based Comprehensive Retrospective Review (2003-2017)

Hanine Almubayedh¹, Reem Albannay¹, Kawthar Aleleq¹, Rizwan Ahmad², Niyaz Ahmad³, Atta Abbas Naqvi⁴

ABSTRACT

Introduction: Atropa belladonna (AB), commonly known as deadly nightshade is a poisonous plant which contains several alkaloids such as atropine and scopolamine etc. Any deliberate as well as unintentional ingestion of AB fruits, roots or leaves may result toxicity.

Aim of the study: This study aims to present the clinical uses of atropine alongwith the adverse effects and toxicity associated with the use of atropine in the form of conventional or as herbal medication.

Methodology: A retrospective (2003-2017) literature was searched in various databases such as web of science, PubMed, google scholar, Scopus, E-Resource Portal of Imam Abdulrahman bin Faisal University etc. using the keywords i.e. AB, clinical uses of AB, adverse effects and cases reported with AB.

Results: Ten (10) cases met the eligibility criteria where the toxicity was mostly associated with the use of AB fruit, tablets and AB contaminated drinks. Major symptoms observed in these cases were related to Anticholinergic syndrome (ACS); tachycardia, dilated pupils, confusion, flushed dry skin, hallucinations and seizures in some cases alongwith a toxic megacolon. Furthermore, the treatment protocol used widely for ACS consisted of; gastric lavage and the use of Physostigmine as an antidote (antagonizes the central as well as peripheral toxicity of atropine).

Conclusion: AB fruit revealed a vital role as anticholinergic drug, mydriatic agent and as an antidote for OP poisoning, however, its use deprived of medical supervision or in a large quantity, it may cause severe toxicity.

Keyword: Atropa belladonna, clinical uses, toxicity, anticholinergic, cases reported.

A Case Report of Eosinophilic Colitis in an Eldery

Chieng Jin Yu¹, Abdul Hanif Khan¹, Lee Bang Rom²

ABSTRACT

Introduction: Primary eosinophilic gastrointestinal disease (EGID) is a spectrum of disease characterized by eosinophilic infiltration along gastrointestinal tract without other causes of eosinophilia, with Eosinophilic colitis (EC) as the rarest form.

Case: We reported a rare case of Eosinophilic colitis, where a 69-year-old gentleman presented to us with chronic diarrhea associated with mild abdominal pain for 6 months. He had mildy distorted glands with markedly increased eosinophils (>40/high-power field) in the lamina propria. Otherwise, his allergic skin testing was normal. His diarrhea was resolved with a course of steroid, with repeated blood test showing improving eosinophilia of 4.5%.

Conclusion: EC is rarely reported. However, this could be underdiagnosed. All chronic diarrhea cases should be offered colonoscopy with biopsy to rule out Eosinophilic Colitis.

Keyword: diarrhea, colonoscopy, eosinophilia
The effect of Sargassum Duplicatum Extract Towards SGPT Level in Rattus Norvegicus Infected by Plasmodium Berghei

Herin Setianingsih, Dimas Bathoro Bagus Pamungkas

ABSTRACT

Introduction: Malaria still becomes a major health problem in Indonesia, especially in the eastern part of Indonesia. The occurrence of Plasmodium resistance against antimalarial medications increases the difficulty of malaria wipe-out effort. With such a great Sargassum production potency that Indonesia possesses, it is very likely to develop Sargassum as an adjuvant therapy in order to prevent and even to stop the resistance.

Method: The research employed 24 white rats (Rattus norvegicus) that had been infected by Plasmodium berghei and were divided into 3 groups. This research aims at developing adjuvant therapy from sargassum extract to prevent the resistance of malaria therapy using dihydroartemisinin piperaquin by SGPT level. Variable that was watched for liver function is the level of SGPT.

Result: The result shows that SGPT level decreased more significantly in groups in which the rats received dihydroartemisinin piperaquin and 100 mg/KgBW Sargassum extract as adjuvant therapy than the group in which the rats received Sargassum extract at dose of 300 mg/KgBW.

Conclusion: Sargassum duplicatum with the dose of 100 mg/KgBW shows the more significant decrease of SGPT level in rattus norvegicus wistar strain inoculated by plasmodium berghei than in the dose of 300 mg/KgBW. Therefore, it is really recommended to all researchers who want to conduct research on the similar topic to find out the most effective dose of sargassum duplicatum as an adjuvant therapy for the treatment of malaria.

Keyword: Sargassum duplicatum, malaria, SGPT

Ethanol Extract Cream of Jackfruit Tree Bark (Artocarpus Heterophilus) is Equally Effective With Hydroquinone Cream on Preventing The Increase of Melanin Amount on Guinea Pig’s Skin (Cavia Porcelus) Exposed to Ultraviolet B Ray (UVB)


ABSTRACT

Introduction: Ethanol extract of jackfruit tree bark (Artocarpus heterophilus) contains antioxidants, phenolic substances, tannin, steroid, linoleic acid ethyl ester, and vitamin C which are able to inhibit the elevation of melanin levels on epidermal tissue. Hydroquinone (HQ) was used as comparison because HQ is the gold standard of hyperpigmentation therapy.

Method: This research is a laboratory experimental research using the randomized post test only control group design with 30 male guinea pigs (Cavia Porcelus) divided into 3 groups with 10 individuals on each group, with control group given base cream, group 1 was administered 4% hydroquinone cream, and group 2 was administered 4% jackfruit tree bark extract cream. All intervention groups were exposed with UV-B ray with total dose of 390 mJ/cm² three times in a week for 2 weeks, and underwent biopsy of their skin sample to examine the amount of melanin on the epidermal layer.

Result: The result of our research showed the mean amount of melanin on control group was 54,33±4.51%, group 1 was 3.01±0.89%, and group 2 was 4.23±1.82%. There is a significant difference between control group and both group 1 and 2 in inhibiting the increase of melanin amount on epidermal tissue (p<0.05). There is no significant difference between group 1 and 2 on inhibiting the increase of melanin amount on epidermal tissue (p>0.05).

Conclusion: We conclude that 4% jackfruit tree bark extract cream is able to prevent the increase of melanin amount on guinea pigs’ skin epidermal layer. The 4% jackfruit tree bark extract cream is equally effective to 4% hydroquinone cream on preventing the elevation of melanin amount on epidermal layer of guinea pigs’ skin exposed with UV-B ray.

Keyword: jackfruit tree bark extract cream, melanin amount, UV-B ray
The Quantity and Leukocytes Components as Biological Dosimeters on the Radiation Workers at Radiology Installation RSUP Sanglah Hospital Denpasar

N.N. Ratini, N. L.P. Trisnawati, G.N. Sutapa

ABSTRACT

Introduction: Regularly, the radiation monitoring program is applied to all radiation workers using physical dosimeter, in the TLD form, badge films and others. The monitoring from the biological aspect is called biological dosimeter as an indicator of the organ damages that caused radiation exposure, especially on the radiation workers in the radiology installation RSUP Sanglah Hospital are not much studied. This study aims are determining of the quantity and leukocytes components differences that caused environmental radiation exposure in direct contact radiation and direct non-contact radiation workers.

Method: The research data was obtained through the blood test at RSUP Sanglah Hospital Denpasar with diffraction count method. The extent of the leukocyte component is determined by the absolute count method. The population in this study were 70 people with the total sample were 35 direct radiation radiation workers (30 radiograper people, 5 medical physicists) and 35 direct non-contact radiation workers (12 nurses, 18 administrative personnel, 5 medical records).

Results: Generally, the blood cell quantity values (hemoglobin-HGB, RBC-erythrocyte, leukocyte-WBC), as well as the percentage of WBC components (basifil-Baso, eosinophil-Eos, neutrifil-Neo, lymphocytes -Limfo and Monocyte-Mono) for radiation workers and non-radiation workers are in the normal range. However, in the normal range, radiation workers have a wider range than non-radiation workers, indicating that radiation workers have undergone a stochastic radiation effect. While the quantity of blood cells over the age range of radiation workers and non-radiation workers alike shows the stochastic effect tends to appear in the productive age of 31-40 years old. For the age of 21-30 years is still normal caused by a relatively new work mass. But at the age of 41-50 tends to approximate the deterministic effect, this can be understood because the mass of work that has been long enough.

Conclusions: For long time in the radiation field area which increase the deterministic effect the cells of the human body response. Primarily, biological indicators of radiation as a dosimeter are used.

Keyword: blood cell, dosimeter, biology of radiation

The Effect of Piper Crocatum Leaves Ethanol Extract to Diabetic Rat Models

Riami, I Ketut Sudiana, Bambang Purwanto

ABSTRACT

Introduction: The adverse effects of synthetic antidiabetic drugs recently cause most of people to find the alternatives by consuming any traditional medicine. One of the traditional medicine that is often consumed is the Red Betel (Piper crocatum), which has a potency as anti-hyperglycemic / anti diabetic, anti hypertension, anti infection, anti ulcer, anti gout and anti kidney stones agent.

Method: In order to explain of the activity of the ethanol extract which is derived from Red Betel leaf (Piper crocatum), 20 Wistar white rats, 60-70 days old, were divided into 4 groups (K0, K1, K2, K3) randomly. The group of K1, K2, K3, were injected with streptozotocin 50 mg / kg BB i.p to produce the diabetic rat model, then on the IV day, blood sugar levels were examined. Subsequent to 21 days: Group K0 (Normal Control), K1 (DM Control) were administered the normal saline, while the group of K2 and K3, were administered the ethanol extract of Red Betel leaf with variation of the dose (50 mg / kg.b.w / day and 100 mg / kg.b.w / day). On the day of 21st, all of the diabetic rat models were examined for the fasting blood glucose level.

Result: This study statistically was in order to found the fasting blood sugar level was decline significantly. Based on the homogeneity test of homogeneous variance of fasting blood glucose level post test was not needed to do, the Brown-Forsythe test was p = 0,003, the result was showed statistically significant of fasting blood glucose level post test among the 4 group.

Conclusion: The Red Betel (Piper crocatum) leaves ethanol extract which the administered dose was 50 mg / kg BW, may decrease the fasting blood glucose levels of diabetic rat models.

Keyword: red betel extract, Piper crocatum, diabetes mellitus, fasting blood glucose
Adjusted Opioid Combination Reduce Painkiller Requirement and Side Effect in Postsurgical Patients with Renal Failure

Marilaeta Cindryani, Tjokorda GA Senapathi

ABSTRACT

Introduction: Postsurgical pain could be perceived in different scales by different persons. Each person has different pain threshold which in turn need good painkiller and management. In the other side, dosage and side effects are two precautions that could give pain physicians certain warnings especially in patient with renal failure. Dosage adjustment and multimodal therapy are eligible ways to be employed in solving problems related with equianalgesic concentration but with potential pain reliever. Conclusion: Opioid combination between two types of different potency and work site could be used to reduce requirements of analgesic and decrease side effects of high dose one type of opioid.

Keyword: opioid combination reduces requirements side effects renal failure

Rational Use of Medicine: Prescribing Indicator in Kuta Primary Health

Dewa Putu Ayu Satrya Dewi, Putu Eka Arimbawa

ABSTRACT

Introduction: The Government of Indonesia has a lot of intervention for rationalizing drug use of all levels of health services including Primary Health Care. One of the programs of rational use of drugs at Primary Health Care is monitoring and evaluation of drug use conducted by pharmacist. The purpose of this research was to evaluate the rationality of drug use in Kuta Primary Health Care that review from WHO prescribing indicators and knowing the difference percentage of rationality of drug use between Kuta Primary Health Care.

Method: This research used cross sectional design research conducted in Kuta Primary Health Care on October 2017. Data analyzed using descriptive analysis and Kruskall-Wallis test. Result: The average number of drug prescribed per encounter was 2.9. The percentage of drugs prescribed by generic drugs was 85.91 percent. The percentage prescribed of encounters in which an antibiotic on ARI non Pneumonia was 29.94 percent and percentage prescribing antibiotic drugs in a non-specific diarrhea was 23.84 percent. The percentage prescribed of encounters injection was 0 percent. On the basis of the finding of this study the prescribed practices for polypharmacy, generic prescribing, and antibiotic shows deviation from the standard recommended by WHO and Directorate General of Pharmaceutical and Medical Devices Indonesia.

Conclusion: These finding suggested increased health workers knowledge through scientific meetings or Focus Group Disscution (FGD) that can support a rational use of drugs in the Primary Health Care.

Keyword: rationality of drug use, primary health care, prescribing indicator
Antibiotics Delay in Acute Pharyngitis Patients Based on Guidance of Basic Health Service in the Public Health on Klungkung Regency, Bali-Indonesia 2017

Ida Ayu Manik Partha Sutema1, IMAG Wirasuta2, Fauna Herawati3

ABSTRACT

Introduction: Pharyngitis is an inflammatory disease of the throat / pharyngeal wall that is suddenly and rapidly deteriorated caused largely by viruses (90% of adults and 70% children). Klungkung Primary Health Care (PHC), Bali diagnose patients with acute pharyngitis is based on Guidelines for Primary Care at the PHC in 2007, namely, using the history that has not been helped by the diagnostic tool. According Permenkes 2014 regarding clinical practice in primary care put more emphasis on the use of diagnostic tools, especially in differentiating the causes of bacterial or viral pharyngitis. Viral pharyngitis (self-limiting disease) that can heal itself for 5-7 days, so antibiotic therapy is not required. Overall patients diagnosed with acute pharyngitis in the history of signs and symptoms treated using antibiotics directly in PHC Klungkung, Bali. The National Institute for Health and Care Excellence recommends prescribing strategy without antibiotics or delayed antibiotics for 2-3 days at ARI category, so this study aims to determine differences in treatment with antibiotics delay (delayed antibiotic) compared to immediate antibiotics to cure pharyngitis patients treated for 3 days.

Method: Subjects were entered into the inclusion criteria received treatment / intervention in the form of antibiotics directly in the control group with A code and a delay of antibiotics in the test group with the B code who received treatment for 3 days at random in accordance sequence permutation block.

Result: Healing group delay (delayed antibiotics) is higher (by 90%) than the group of antibiotic use (by 73.3%), with the test results are not statistically significant differences between the two groups (p = 0,095).

Conclusions: Delays same antibiotic in providing relief compared to the use of antibiotics, and the rest give different healing (group rest to recover 100%).

Keyword: delay of antibiotics, acute pharyngitis, Primary Health Care of Klungkung regency of Bali Province

Reconstruction of Acetabulum in Revision Total Hip Arthroplasty for Pelvic Discontinuity with Reinforcement Cage and Bone Graft: A Case Report

I G N Paramartha Wijaya Putra, I Wayan Suryanto Dusak

ABSTRACT

Introduction: Neglected traumatic dislocations of the hip are rare in adults. However, in developing countries, unreduced traumatic dislocations are not uncommon. They are usually the result of a motor vehicle accident, often combined with multiple trauma including head injury, fracture of the ipsilateral femur or bilateral injuries, which may detract attention from the dislocation. Neglected hip dislocations occur in situations when the patient does not or cannot seek adequate medical care. Total hip replacement (THR) is recommended for hip dislocations with duration more than 3 months. A complete understanding of the factors that play a role in the etiology of instability of hip and a clear knowledge of treatment options are mandatory for the surgeon tackling this injury.

Case: We report a case of female, 34 years old with neglected posterior dislocation (19 years) and do Total Hip Arthroplasty, after 4 years patient came with persistent pain on her right hip, limping gait and posterior hip dislocation post Total Hip Arthroplasty and we do revision Total Hip Arthroplasty with reinforcement cage and bone graft with follow up after surgery.

Conclusion: In the case of pelvic discontinuity with massive acetabular bone defect (Paprosky III B), reconstruction by stabilizing both acetabular reconstruction with the use of acetabular reinforcement cage and fresh allograft has shown satisfactory clinical and radiographic results at a medium-term follow-up. This early result suggests the technique is useful to reconstruct the acetabular bone defects and restore the hip centre of rotations so that the mechanical outcome can be improved.

Keyword: total hip arthroplasty, pelvic discontinuity, traumatic dislocation
Case Report: Surgical Intervention of Cervical Spondylotic Myelopathy at Sanglah General Hospital

IGK Satrio Adiwardhana, I Ketut Suyasa

ABSTRACT

Introduction: Cervical spondylotic myelopathy (CSM) is a condition caused by the narrowing of the spinal canal due to degenerative process which require surgical intervention. Symptoms often develop gradually and characterized by pain, neck stiffness, weakness of the hands and legs which frequently leads to a change in mobility. Surgical intervention is needed to prevent the progression of symptoms and also to improve existing symptoms.

Case: We reported two patients with cervical spondylotic myelopathy that were treated with surgical intervention, one case with laminoplasty and another case with laminectomy procedure. The functional outcome was assessed using Nurick grade and Modified Japanese Outcome Association (JOA) at pre and post-surgical intervention. A brief review of the literature is included.

Conclusion: There was no improvement in neurological outcome after surgical intervention but there was a mild improvement in pain and functional status after surgical intervention.

Keyword: cervical spondylotic myelopathy; laminoplasty, laminectomy, nurick grade, modified japanese outcome association, case report

Cervical Spine Tuberculosis: A Case Report

Ida Bagus Gede Arimbawa, I Ketut Suyasa

ABSTRACT

Introduction: Cervical tuberculosis is a rare disease with high complication rate. Tuberculosis of the cervical spine is reported in about 6-9% of all cases of spinal tuberculosis. It most commonly occurs in young adults and the most common site in the cervical spine is the subaxial spine. Early diagnosis and treatment of spinal tuberculosis is essential in order to prevent neural deficit.

Case: 53 year-old male patient diagnosed with cervical tuberculosis of C3-C4. The patient had tuberculosis chemotherapy for 3 months and immobilization with cervical collar. Surgical intervention consisted of anterior and posterior procedure including posterior arthodesis C3-C4 with instrumentation followed by debridement and strut graft from iliac crest using left-side anterolateral approach was done on February 2017.

Conclusion: The cervical spine is a rare localization of tuberculosis. The aim of spinal tuberculosis treatment is to control active tuberculosis lesions, but not to remove dead bones. Patients with cervical spine involvement are at high risk for neurologic deficit but do well after anterior debridement and fusion. Neurologic compromise is the primary indication for surgery.

Keyword: tuberculosis, cervical spine, anterior debridement, posterior instrumentation.
Giving Mix Juice of Banana Honey Tomato Can Increase Potassium Serum Levels, Speed Up Runtime and Recovery for Athletes Pasi Denpasar City, Bali-Indonesia

I Wayan Juniarsana¹, Nyoman Adi Putra², Ketut Tirtayasa², Putu Gede Adiatmika², I Nengah Sandi³

ABSTRACT

Introduction: Intense physical exercises such as athletic need more energy and cause fatigue and excretion more sweat which is possibly related to electrolyte level in blood, speed and recovery. The objective of this study was to identify the level of potassium, speed and recovery for athlete and to investigate the effect of mix juice of banana honey tomato for the athlete with 14 days treatment 30 minutes before exercise and 30 minutes after exercise.

Method: This study was experimental with one group pre and post-test design using nine athletes as a member of PASI Denpasar City, male, 14 – 17 years old with standard Body Mass Index. The potassium level was quantification with Spektrofotometri method. The data were analyzed using t-paired test.

Result: The increase in potassium levels and running speed was slightly significantly after treatment mix juice of banana honey and tomato (p<0.05). Recovery pulse rate has tended decrease gradually after giving mix juice of banana honey and tomato although there was not significantly different compare with before treatment (p>0.05).

Conclusion: From this finding it can be concluded that mix juice of banana honey and tomato can maintain potassium levels and improve performance athletes.

Keyword: mix juice of banana honey and tomato, potassium serum, speed, recovery

Functional Outcome of Partial Meniscectomy and Repair on Discoid Meniscus: A Case Series

I G.N. Yudhi Setiawan, I G.N. Wien Aryana

ABSTRACT

Introduction: Menisci are C-shaped cartilaginous padding between the tibial plateau and the femoral condyles composed of type-2 collagen arranged in a circumferential pattern. Menisci function to distribute forces equally across the joint surface, stabilize the contact between the femur and tibia, aid in joint proprioception, and aid in lubrication. A discoid meniscus is a thickened disk-like morphologic variant of a normal meniscus. Discoid menisci can be partial or complete depending on the amount of tibial plateau they cover. Discoid menisci are prone to early tearing and degeneration.

Case: We reported three patients with discoid menisci who had knee pain and a limited range of motion in flexion and extension, also audible click sound McMurray. The MRI of the knee revealed an enlarged lateral meniscus with tear, increasing ratio of the minimal meniscal width to maximal tibial width on the T2-weighted coronal slice of more than 20% and bow tie appearance over more than 3 consecutive slice over the sagittal MRI. Due to the MRI findings and persistent symptoms, arthroscopic treatment was recommended. The patient underwent arthroscopic repair of the meniscus at Sanglah General Hospital Denpasar Bali between September 2015 and March 2016. The patients underwent arthroscopic partial meniscectomy and repair over the affected meniscus. After the surgery, they had returned to full activity and sports contact after 4–6 months of physical therapy. They showed a good result based on WOMAC index.

Conclusion: This study has shown that treatment of discoid meniscus with partial meniscectomy and repair in women athlete consider to get satisfactory functional outcome based on WOMAC index.

Keyword: meniscectomy, discoid menisci, WOMAC index