



SRI LANKA ASSOCIATION OF
RHEUMATOLOGY AND
MEDICAL REHABILITATION

President's Message

Dr. J.V. Ariyasinghe MD. FRCP

This is the first newsletter published by the new committee and we would strive to maintain the high traditions of the association.

During the past year a few joint meetings were held in Colombo and Kandy with the orthopaedic association and other clinical societies. We hope to continue the same trend for the benefit of the members of the association.

Several members attended the APLAR 2002 congress in Bangkok and we hope that they will impart this knowledge so gained to the other members at a clinical meeting.

The Rheumatologists should encourage the medical officers working in their departments to do simple research projects on their clinic patients, as very little has been published in the journals.

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Leading Article

SPECIAL SEATING SERVICE FOR CHILDREN WITH DISABILITIES

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The Rheumatology and Rehabilitation Hospital, Ragama (RRH) has introduced a special seat for children with cerebral palsy and other childhood disabilities. A British Non-Governmental Organisation (NGO) – “Motivation” gave the technology and guidance.

The Motivation team consisted of a physiotherapist, an occupational therapist, a seating therapist, a speech and language therapist and the technical staff. They provided specialist knowledge and skills to design a low cost seating system for children with disabilities using locally available materials. They have trained a local therapy team and a technical team to prescribe and produce special seating system and any additional therapeutic devices.

What is special seating?

Many children with disabilities are unable to sit without support. They may spend long period of time lying on one side or sitting in a bad position. This will cause secondary disabilities such as muscle contractures and postural deformities. These children need a special seat, which will give them more support than a standard chair or a wheel chair. This seat, with or without wheels, has functional activity and communication devices to facilitate the child's life skills. The chair will give more support to the child and he/she can sit upright and interact with the world around them.

What are the conditions that require special seating?

1. **Cerebral palsy** : Not all the children with CP need special seat. Those who have difficulties in maintaining balance, posture, mobility and communication need a special seat.
2. **Spina bifida** : Usually they are normal in intelligence but they may have problems with mobility and bladder bowel control. The extent of severity depends on the size of the



lesion. Most of them are having paraplegia and need special seat with wheels to maintain the balance and mobility.

3. **Duchen muscular dystrophy** : The gradual weakness and wasting of skeletal muscles causes inability to perform activities of daily living. There is no cure for this condition at present and regular physiotherapy and occupational therapy are required to maintain their independence as long as possible. They need a special seat with wheels for mobility and to maintain correct posture.

Special seat at RRH

The Motivation multi disciplinary team conducted a training program at RRH for therapists working with children. The aim of this training was to increase the therapist's skills in developing the life skills of children with disabilities. Our trainers had completed the course successfully and now they work with children with disabilities and the seating therapist does the necessary prescribing and fitting of special seats.

It is made in three standard sizes called G-1, G-2 and G-3. At present the respective cost are Rs.13,000, 19,000 and 21,000. Seat manufactured at RRH has a bookstand, angled work surface, horizontal and vertical grab bars, activity frame and a communication book. Specially designed angled work surface helps them to communicate with their friends, family and teachers. It will also assist them for feeding, drinking and learning activities. The chair is light and easy to manure around the house and made of locally available materials. Repairs can be done at any workshop in the island at a low cost.

The Ministry of Health has not yet allocated necessary funds for this project at RRH . Therefore we are unable to offer this service free of charge. Spinal Injury Association (SIA), RRH based Sri Lankan NGO, is given the responsibility of managing the workshop in accordance with the memorandum of understanding signed by Ministry of Health and the Motivation.

The families with good income or covered by an

insurance scheme / welfare fund are asked to bear the total cost of the chair. Others need to pay a minimum amount ranging from Rs.3500/- to Rs.5000/- according to the type of the chair. They are encouraged to generate funds through local well-wishers as well. The balance is funded by the SIA. The SIA welcomes any contribution towards this purpose from well-wishers.



How to access the service?

Any medical officer can refer suitable children to our general medical clinic which is held on Wednesdays and Fridays in the mornings. The patients are screened in the clinic and those who need special seats are enlisted in our seating clinic waiting list.

Seating clinics are held on first Friday of the month at RRH. It's a joint clinic run by a pediatrician and a rheumatologist.. In the same clinic, seating therapist assess the suitability and size of the chair needed. Social service officer does a more detail financial screening to identify the amounts the family is able to contribute towards a seat. The child is given a date to be admitted for one month at RRH to receive a seat.



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The payments are to be made to the S I A office and the receipts are to be produced when they come for admission. For those who have not make the payment will be given another appointment for admission when they are ready with the payment.

How does the special seating service work?

Eight suitable children from the waiting list will be admitted at the beginning of the month to the pediatric ward at RRH for one month hospital stay. During this period they receive intensive therapy from a multidisciplinary team. The team specifically concentrates to improve purposeful and meaningful activities to upgrade the life skills and independence of a disable child. Some of these disable children who have other medical complications such as epilepsy, hearing and visual problems are referred to relevant specialties at the Teaching hospital Ragama.

Once the seat has been assembled, the child is trained with their parents or career how to use and look after the seat and for some children this will include basic wheel chair skills too. End of the month child is discharged with special seat and if he/she need further session of therapy an appointment is given to come as an out patient.

Every child who received a seat gets an appointment for a review at the clinic six months later. At this appointment both the child and the seat are examined and if the child is grown the seat is adjusted accordingly.

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Food & Rheumatology

Two cups of coffee per day interfere with efficacy of Methotrexate

Arthritis Rheum 2003;48:571-572.

Methotrexate is believed to inhibit adenosine deaminase, thereby increasing adenosine and exerting antiinflammatory effects. Caffeine, an adenosine receptor antagonist, reportedly reverses the antiinflammatory effects of methotrexate in a rat model of RA.

Dr. Gideon Neshet and associates at Shaare-Zedek Medical Center, Jerusalem, initiated treatment with methotrexate, 7.5 mg/week, in 39 patients with recent-onset RA. Dosages were adjusted as needed.

Patients reported dietary intake 3 times during 3 months of follow-up. Patients in the lowest tertile of caffeine intake consumed < 120 mg/day, while those in the highest tertile consumed > 180 mg/day.

Patients in the highest tertile exhibited 41.9% improvement in joint pain from baseline, significantly lower than the 58.8% improvement in those with the lowest consumption ($p = 0.028$). Corresponding improvements in morning stiffness were 41.2% and 58.5% ($p = 0.013$). The authors also detected less improvement in tender and swollen joint count and erythrocyte sedimentation rate, but the differences did not reach statistical significance.

Dr. Neshet's group points out that the patients averaged 166 mg caffeine/day, equivalent to 2.5 cups of instant coffee or 1.25 cups of brewed coffee per day. Average consumption in the high caffeine group was 258.5 mg/day, which amounts to almost 2 cups of brewed coffee daily.

Fish Oil Supplementation Appears to Reduce Lupus Activity

Reuters Health Information 2003

In what they say is the largest study of its kind, Dr. Emeir Duffy and colleagues studied the effect of fish oil supplements in 52 patients with active lupus over 6 months.



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All the participants who took the fish oil saw improvements in quality of life, inflammation and fatigue, which is the most debilitating symptom of lupus, said Dr. Duffy, a biomedical scientist from the University of Ulster.

"Some found it fantastic and they went from being severely affected in their daily life to actually joining the gym and having a huge difference in what they could do," she told Reuters Health. "Others saw a mild improvement, being able to go out and do the shopping which is a big bonus to some people who can't even leave the house."

Recently, researchers have been looking at managing lupus through diet. The omega-3 fatty acids that are found in fish oils and some other foods have raised particular interest because of their anti-inflammatory and anti-autoimmune properties. Participants in this study took either fish oil supplements three times per day, a copper supplement, copper plus fish oil, or an inactive placebo. The copper was of no benefit, the investigators found.

The researchers have not yet published their research. •

From The Web

Report of the (APLAR) 2002 Meeting December 2-5, 2002; Bangkok, Thailand

Obtained from

Medscape Rheumatology 5(1), 2003 Robert Fox, MD, PhD

Over 1000 participants from more than 25 countries presented over 300 clinical and research papers at the Asian Pacific League Against Rheumatism (APLAR) meeting held early December 2002 in Bangkok, Thailand.

In terms of response to new therapies, a large number of presentations (and pharmaceutical company-sponsored symposia) dealt with the use of new therapeutic agents such as cyclooxygenase-2 (COX-2) inhibitors (eg, celecoxib, rofecoxib) and disease-modifying agents (including, leflunomide, and the TNF inhibitors etanercept and infliximab) in Asia. Reports on the use of COX-2-selective agents in patients from Japan, India, Taiwan, Republic of China, Malaysia, and Thailand were presented. The conclusion of these studies was that no unexpected surprises were encountered in terms of efficacy or short-term toxicity other than those reported in the widely published US studies. However, the use of TNF inhibitors may be a different story. The major concern was the risk of reactivation of TB in the treated rheumatoid arthritis (RA) population because TB is highly endemic in Asia and because of earlier experience with TNF in eastern Europe. These TNF-treated patients are being observed carefully. But it has been difficult to evaluate the relative increased risk thus far because of the high rate of past exposure, the unusual clinical presentation of TB and re-activation of TB even in the absence of TNF inhibitors.

Several reports outlined the features of TB infection in patients with RA even in the absence of TNF inhibitors. Yoshinaga and colleagues from Okayama, Japan reported that older patients with RA (median age, 72 years) had a high frequency (> 70%) of past exposure to TB based on skin tests and chest x-ray findings. Among 15 patients with RA admitted with clinically active during the past 2 years, only 2 gave a prior history of TB requiring prior treatment (with isoniazid); 7 of these admissions did not have symptoms suggestive of TB (ie, cough, fever, and increased sputum) but changes on chest x-ray led to diagnosis. Extrapulmonary TB was found in 8 of these 15 patients with RA, including those presenting with miliary TB and amyloidosis. Although a controlled population was not available to assess the role of RA therapy (generally treatment with methotrexate and/or corticosteroids), it was the clinical impression that these treatments played a role in disease reactivation.

In Iraq, Adhadh reported that TB of both the spine and peripheral joints (particularly the knee) could closely mimic RA involvement. Asavatanabodee from India reported TB causing sacroiliitis that mimicked Reiter's syndrome. In regard to the clinical presentation of TB and RA as differential diagnostic entities, it is important to remember



that the initiation of gold therapy for RA at the turn of last century was predicated on the belief that RA was a manifestation of TB and thus the use of heavy metal therapy (ie, gold) which was thought to be useful in the treatment of TB. The Asian experience causes one to doubt that clinical presentations of increased polyarticular disease reflect only more active RA and that the diagnosis of TB can be excluded if the flare is not monoarticular.

The potential similarity of expressions of TB and arthritis is further underscored by the reactivation of TB in US patients treated with TNF inhibitors. Thus, mechanisms of iNOS and p38 may contribute to pathogenesis of RA and are known to be stimulated by TNF-induced mechanisms. Conversely, inhibition of these TNF-driven mechanisms leads to dramatic remission of RA. However, the same mechanisms that utilize TNF serves to prevent the activation of TB. Thus far, clinical reports have focused on reactivation of TB in patients with pre-existing infections, However, there was consensus that the possibility of patients on TNF inhibitors receiving infection from other active TB patients has not been clearly ruled out. This will be much more of a problem in Asia than in the US, since the number of active TBC patients is so much higher. Of importance, Mok and colleagues from Hong Kong found that isoniazid chemoprophylaxis did not prevent the reactivation of TB in 44 patients in a cohort of 652 patients who subsequently received immunosuppressive drugs.

Septic arthritis is relatively common in SLE patients who receive cyclophosphamide, according to Kriwapan and coworkers in Taiwan, who reported 139 cases. Of interest, salmonella septic arthritis was the most common cause of septic arthritis and was more frequent than staphylococcus. Kong and colleagues from Singapore reviewed the case records of lupus patients admitted during the past 4 years and developed a predictive model for septicemia among SLE patients. Risk factors included active nephritis, cerebral lupus, lupus carditis, pulmonary hemorrhage, leukopenia, leukocytosis, and thrombocytopenia. The US

rheumatologist must be aware of these risk factors if our patients in Asia return to the United States and then receive chemotherapy and become leukopenic.

During the workshop on Behçet's disease, it was noted that this disease is seen most often along the ancient Silk Road, with the highest incidence in Iraq which decreases as one travels along the Silk Road toward China. Of particular interest, epidemiologic studies evaluated the frequency of Behçet's disease among patients (and individuals at higher risk with HLA-B51) as they have moved from the Silk Road to other regions including Southern China, Thailand, and Australia. The incidence of Behçet's among these genetically predisposed individuals drops dramatically as they move away from the Silk Road and approaches the rate in the new geographical area. These results have been interpreted by Xiaomei and investigators as reflecting a strong influence of a still-unidentified environmental factor(s) in pathogenesis. In India and Singapore, the rates of Behçet's disease among these "migrants" are low and similar to those among the native populations, according to Kumar and colleagues and Cheng and colleagues respectively.

The Asian experience with herbal medicines is also important. Kertia and coworkers in Indonesia and Petrenco and coworkers in Moldova reviewed the use of herbal drugs for RA and osteoarthritis. A wide variety of herbal extracts are commonly used, often in combination with traditional COX-1 nonsteroidal anti-inflammatory drugs. However, controlled trials involving most of these extracts have not been conducted. However, extensive discussions were presented in the workshops on several herbs that have been extensively studied and are available in the US. Since participants in these workshops have published their results in English journals, the references to the studies available on National Library of Medicine are also noted below.

Perhaps the most widely used antiarthritic herb is *Tripterygium wilfordii* Hook F, also known as "thunder god vine." Recent studies have shown that this agent interferes with the production of inflammatory cytokines IL-1 and TNF when injected into mice. Chen and coworkers from Shanghai have isolated an active component (triptolide, a diterpenoid triepoxide) which inhibits NF-kappa at a site distinct



from that of cyclosporin A. In a phase 1 trial in 1993, RA patients showed no significant hematopoietic toxicity, but further controlled trials have not been reported. Despite the potential therapeutic benefits, there is ample documentation that this agent is toxic, targeting, among other things, the hematopoietic system, and its use has resulted in cases of leukopenia, thrombocytopenia, and aplastic anemia. The use of an ethyl alcohol extract of *T wilfordii* Hook yielded efficacy in a subset of patients with RA during a phase 1 trial without significant hematopoietic toxicity, but further controlled trials have not been done. Even among the discussants from different regions of China, dramatically different levels of enthusiasm for the efficacy for *Tripterygium* were expressed. However, all agreed that the availability of other disease-modifying agents in Asia have led to a rather dramatic decrease in the usage of this herb among Western-oriented rheumatologists. However, its use remains prevalent in rural areas. The consensus seemed to be that the herbs had efficacy but also toxicity, much like our past experience with phenylbutazone. Perhaps the consensus was best summed up by 1

rheumatologist from China who stated that when rapid efficacy was required and money was in short supply, potent herbs would be used, and only the survivors returned for refills. However, according to the discussion, the main reason for decreased utilization of *Tripterygium* is that Chinese female patients complain that they undergo skin changes (wrinkling), which makes them appear older. It is perhaps a tribute to the cosmetic industry and current advertising policy, that patients are more concerned by wrinkles than by the potential hematopoietic risks.

The field of herbal medications (and their controlled trials) has recently been reviewed by De Smet, including observed toxicities and drug interactions. Among the reported phase 2 controlled trials of herbal medications in this recent review, none were used for RA or osteoarthritis nor were any controlled herbal trials reported at the APLAR meeting. However, drug interactions of other herbs with antiarthritic medications (including piroxicam, cyclosporine, tacrolimus, and warfarin) were reported in the review and at APLAR. ●

From Journals

Obtained from: Medscape Rheumatology 5(1), 2003. Robert I. Fox, MD, PhD

Determinants and Sequelae Associated With Utilization of Acetaminophen Versus Traditional Nonsteroidal Antiinflammatory Drugs in an Elderly Population

Rahme E, Pettitt D, LeLorier J *Arthritis and Rheumatism*. 2002;46(12):3046-3054

Rahme and colleagues report the results of a retrospective cohort analysis that examined rates of adverse gastrointestinal (GI) events in an elderly population who received either acetaminophen or nonsteroidal anti-inflammatory drugs (NSAIDs). This study compared the observed and adjusted rates of GI events (hospitalizations, ulcers, dyspepsia, GI prophylaxis) associated with higher vs lower doses of acetaminophen.

This retrospective cohort study involved subjects aged 65 years or older who were prescribed acetaminophen or NSAID between 1994 and

1996. There were 26,978 patients in the NSAID cohort and 21,207 in the acetaminophen cohort. Patients in the acetaminophen cohort had higher unadjusted rates of GI hospitalization, ulcer, and dyspepsia than those in the NSAID cohort. The occurrence of GI events in acetaminophen-treated patients depended on dose. Rate ratios of GI events in acetaminophen-treated patients compared with those in patients receiving high-dose NSAIDs and adjusted for risk susceptibility ranged from 0.6 (95% confidence interval 0.5-0.7) for ≤ 650 mg/day to 1.0 (0.9-1.1) for > 3250 mg/day. The authors conclude that patients at



higher risk of GI events more commonly receive acetaminophen. After adjustment for risk susceptibility, patients receiving higher doses of acetaminophen have higher rates of GI events compared with those receiving lower doses of acetaminophen. This article is important to rheumatologists because it was reported in the public press as suggesting that the risks of acetaminophen were equal to or greater than those of NSAIDs, a conclusion not supported by the data.

An excellent editorial in the same journal issue, by Abramson, helps put the published data of Rahme and colleagues in perspective. Acetaminophen is among the most commonly used of all medications, widely accepted as a safe and effective analgesic for mild-to-moderate pain. It is a frequent first-line choice for pain management in the elderly with osteoarthritis according to both the American College of Rheumatology and European guidelines. The rationale for this treatment approach has been that acetaminophen offers efficacy comparable to that of COX-1 NSAIDs with fewer side effects and lower cost.

The 2 central conclusions by Rahme's group were that acetaminophen use was more common among patients at higher risk for GI events and that higher doses of acetaminophen conferred higher rates of GI events compared with lower doses. In interpreting these conclusions, it is important to note that patients at higher risk for GI complications would be advised to take acetaminophen rather than an NSAID. Also, the most frequent GI effects of acetaminophen were dyspepsia and not bleeding ulcers, ulcer

complications, or hospitalizations. This distinction is a key point in the comparison of acetaminophen and NSAIDs. What cannot be concluded from Rahme and colleagues' study is that acetaminophen use is associated with more serious GI adverse events.

Although the authors report an unadjusted rate of GI events higher in the acetaminophen group than in the NSAID cohort, the patients in the acetaminophen cohort were at higher risk (age over 85 and more likely to be taking anticoagulants). Although the authors have tried to statistically adjust for "risk susceptibility," it is unclear whether such statistical techniques can unequivocally eliminate the bias toward increased events in the acetaminophen cohort. Also, the database used in Rahme and colleagues' study did not include information such as smoking history, alcohol consumption, and *Helicobacter pylori* status, or use of over-the-counter aspirin or other NSAIDs. However, other studies have not observed an increase in the rate of serious GI adverse events in their controlled study of the use of acetaminophen. These clinical observations of lack of serious GI events have been confirmed using endoscopic methods when acetaminophen was used as a "control" for NSAIDs.

In summary, the study by Rahme and coworkers does raise interesting questions regarding the potential GI toxicity of high-dose acetaminophen. Also, the renal toxicity of this drug at high doses reminds clinicians that acetaminophen is not without risk. However, we must differentiate dyspepsia, the most pervasive acetaminophen-associated adverse event in their report, from more serious clinical adverse events such as ulcer and ulcer complications. ●

President's Message continued from page 1

This would give us a clear understanding of the modes of presentation of the common rheumatological diseases in the local scenario. Also analysing the results of treatment will show the way our patients react to various drugs such as disease modifying drugs and the physical therapies in the treatment of rheumatoid arthritis and other rheumatological disorders.

We would like some of these issues addressed

during the coming year and the results presented at the next academic sessions or published in the local journals.

An Arthritis Foundation is to be established in Sri Lanka in collaboration with Glaxo-SmithKline consumer healthcare in Sri Lanka. Our association will play a pivotal role in this project and the members will be kept informed of the steps taken in this direction. ●

Sri Lanka Association of Rheumatology & Medical Rehabilitation

Committee for the year 2002/2003

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POSTAGE

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