

of everyday life and 17.0% agree with taking these medicines if the person suffers constantly of light mood swings. **CONCLUSIONS:** Survey results suggest that stigmatization around schizophrenia and major depression is present in Tunisia; there is a great public willingness to help mental disease patients as demonstrated by our study. To conclude, raising public awareness in mental health could reduce the enormous burden in terms of social functioning in families and societies from one side. On the other side, this stigmatization contributes to marginalize patients, exclude them from health care management and affects their disease severity.

PMH36

THE USE OF INTEGRATED CONCEPT MAPPING TO DEVELOP THE DEMENTIA CARE MODEL BY COMMUNITY PARTICIPATION

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OBJECTIVES: The purpose of this study is to develop the dementia care model by using integrated concept mapping and community participation. **METHODS:** Six health care professionals (1 psychogeriatrician, 1 family physician, 1 residency, 1 pharmacist, 1 nurse, and 1 physical therapist) and seven non-health care professionals (3 village headmen, 2 village health volunteers, and 2 patients' relatives) participated the first meeting conducted by Trochim's concept mapping to generate the ideas then sort and rate the ideas for the feasibility and the importance. Later all participants except the psychogeriatrician took part in the second meeting conducted by Novak's concept mapping to name the clusters of ideas then re-organised the ideas and added the details to make the complete model by the IHMC CmapTools computer programme. Multidimensional scaling and hierarchical cluster analysis including quadrant analysis were applied by SPSS software. **RESULTS:** Total 48 ideas of the procedure in the care of dementia patient with the Behavioural and Psychological Symptoms of Dementia (BPSD) were generated by 12 stakeholders. Trochim's concept mapping produced 8 clusters. These eight clusters were labelled as 'Standards of Care for Dementia', 'Efficient Accessibility System and Continual Care', 'Monitoring and Evaluation', 'How to Communicate with Dementia Patients', 'Guideline for Family in Dementia Management', 'Love and Experience Sharing in Dementia Caring Group', 'Building Generous Communities for Dementia Patients', and 'Information Delivery, Surveillance, and Cooperation'. Twenty ideas which were highly important and highly feasible were selected. Finally, the comprehensive model which has 4 components and organised as the procedure in the dementia care with the hospital and community involvement was designed. **CONCLUSIONS:** The dementia care model originated by hospital staffs who facilitate the community to understand and support the family caregivers for the care of dementia patients in the rural area with no nursing home. Integrated concept mapping helps to design the appropriate model for the real practice.

MUSCULAR-SKELETAL DISORDERS – Clinical Outcomes Studies

PMS1

OUTCOMES IN SEVERE OSTEOPOROTIC WOMEN IN KOREA USING SEQUENTIAL TREATMENT

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OBJECTIVES: Clinical management of osteoporosis often involves different pharmacologic therapies in a sequential manner. Real-world outcomes based on sequential treatment in Korea are lacking. Our purpose was to estimate outcomes (fractures, life years (LYs), and quality-adjusted life years (QALYs)) for post-menopausal osteoporotic (PMO) women using teriparatide followed by alendronate versus only alendronate. **METHODS:** A validated model of osteoporosis was used to estimate base-case outcomes in a cohort of 1,000 severe PMO women (aged 65-90; bone mineral density (BMD) T-score of -2.5 standard deviations below young adult mean; 2 prevalent fractures) with 2 years of teriparatide followed by 3 years of alendronate (TPTD2+ALN3) compared to 5 years' alendronate (ALN5). A lifetime horizon was used; 100% therapy persistence was assumed. Efficacy values for fracture risk reduction and health utilities were obtained from the literature. Fracture incidence rates were estimated from Korean national insurance data (HIRA 2012). Sensitivity analyses were conducted on length of treatments and patient risk profiles. **RESULTS:** In the base case, compared to ALN5 the TPTD2+ALN3 cohort had fewer fractures (-174; 4329 vs. 4502), more LYs (+32; 8409 vs. 8377), and more QALYs (+74; 5252 vs. 5178). In sensitivity analysis using worse BMD T-score of -3.0, the TPTD2+ALN3 cohort had 198 fewer fractures, and 43 and 92 more LYs and QALYs, respectively, versus ALN5. Assuming longer treatments of 7 years of alendronate (ALN7) only and TPTD2+ALN5, the results showed 185 fewer fractures, 38 more LYs and 83 more QALYs in the TPTD2+ALN5 cohort. In the more severe population using a BMD T-score of -3.0, TPTD2+ALN5 vs. ALN7 yielded improved outcomes in terms of fewer fractures (-224), and more LYs (+48) and QALYs (+104) for the sequential TPTD2+ALN5 cohort. **CONCLUSIONS:** Teriparatide followed by alendronate may lead to improved outcomes when compared to alendronate only in severe PMO women in Korea.

PMS2

THE EFFECT OF DIETARY SELENIUM INTAKE IN THE GENE EXPRESSION OF P38, P65, AND CASPASE-3 IN FLUOROSIS PATIENTS

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OBJECTIVES: Excessive fluoride ingestion causes a disease known as Fluorosis. Selenium supplementation could antagonize the bovine fluorosis. So we want

to investigate how the dietary selenium supplementation to influence the gene expression of p38, p65, and caspase-3 in fluorosis patients. **METHODS:** Ziyang County of Ankang City has higher environmental selenium level, while fluorosis patients who lived in have the habit of tea drinking, especially in Haoping Town. Hanbin district of Ankang City has lower environmental selenium level was chosen as selenium internal control. The fluorosis patients from different environmental selenium level area and the healthy volunteer were divided into three groups: "High Se + F group" (n=20), "High F group" (n=20) and "Control group" (n=20). p38, NF-kB p65 and caspase-3 mRNA level were examined by RT-PCR. β -actin served as determining control. The concentration of fluoride in serum and urine, the content of Se in hair were also determined. **RESULTS:** The concentration of fluoride in "High F group" and "High Se + F group" in serum and urine was higher than that in "Control group" (urine 3.2731 \pm 0.26, 3.2744 \pm 0.31 and 0.7923 \pm 0.14, respectively; serum: 0.3996 \pm 0.03, 0.3888 \pm 0.09, 0.0922 \pm 0.01, respectively). The mean for total Se concentration in hair was different: 2.5005 \pm 0.27 in "High Se + F group", 0.6075 \pm 0.07 in "High F group" and 0.5215 \pm 0.05 in "Control group", respectively. The mRNA level of p38, NF-kB p65 and caspase-3 was significantly high in "High F group" than that in "High Se + F group" and "Control group" (p38: 5.0009 \pm 0.65, 1.2749 \pm 0.09, 1.0574 \pm 0.13, respectively; NF-kB p65: 3.5248 \pm 0.47, 1.9845 \pm 0.14, 1.9976 \pm 0.15, respectively; caspase-3: 2.2936 \pm 0.23, 1.2841 \pm 0.19, 1.3590 \pm 0.18, respectively). **CONCLUSIONS:** These results suggest that dietary high selenium intake help people who suffering fluorosis lessen damage by reduce the gene expression of p38, then reduce NF-kB p65 gene expression and at last lower the gene expression of caspase-3.

PMS3

A COMPARATIVE CLINICAL EVALUATION OF TRAYODASHANGA GUGGULU AND MUSTADIYAPANA YOGA BASTI IN GRIDHRASI

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OBJECTIVES: Gridhrasi (Sciatica Syndrome), Lumbar disc lesions are responsible for the disorder and observed about 25% loss of work, affects social and economic position of the individual and family. The Allopathy treatment involves symptomatic treatments medicines by analgesics for prolonged time associated with more serious and irreversible reaction. Here we have tested a traditional approach as per principles of Ayurveda. **METHODS:** The study was conducted in the OPD and IPD of MIAMS, Manipal with 3 trial groups A-Trayodashangaguggulu, B-Mustadiyapanayogabasti and C-Combined Trayodashangaguggulu and Mustadiyapana yoga basti for the period of 10 weeks in 30 diagnosed gridhrasi patients irrespective of their sex and age group 18-60. **RESULTS:** In group A-Trayodashangaguggulu, 50.00% of patients were assessed under improved category, 10.00% each were assessed under marked improvement and moderate improvement category and 30.00% showed Unchanged. Nobody included under complete relief category. In group B-Mustadiyapana yoga basti, 90.00% of patients were assessed under improved category, 10.00% were showed Unchanged. Nobody included under complete relief, marked improvement or moderate improvement category. In group C-combined therapy of Trayodashangaguggulu and Mustadiyapana yoga basti, 50.00% of patients were assessed under moderate improvement category, 40.00% were assessed under improved category and 10.00% were showed marked improvement category. Nobody included under complete relief or unchanged category. **CONCLUSIONS:** Study concluded all the 3 groups are effective treatment in Gridhrasi and combined therapy Trayodashangaguggulu and Mustadiyapana yoga basti was more effective and showed highly significant results in clinical symptoms of Gridhrasi and also provided highly significant result in improving Greenough & Fraser scoring method, SLR test (Straight leg raising test), Sugar baker & Barofsky clinical mobility scale and Oswestry disability assessment questionnaire.

PMS4

THE EFFECTS OF GALLIUM CHLORIDE ON APOPTOSIS OSTEOPOROSIS MODEL OF RATS CAUSED BY TRETINOIN ACID

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OBJECTIVES: Cell apoptosis is one of the pathogenesis of osteoporosis. Among a lot of medicine, only gallium salts can promote bone formation. The aim of this study is to investigate the effect of gallium chloride on apoptosis in osteoporosis rats which caused by tretinoin acid. **METHODS:** 67 sprague-Dawley (SD) female rats, three months of age, were divided into two groups. 49 rats of model group were treated with tretinoin acid for 85mg/ (kg-d) by gavage while 18 rats of normal group were treated with distilled water for same amount. All rats were administered for 15 days. After the model has been duplicated successfully, the model group rats were divided into three groups: 18 rats of osteoporosis group were treated with tretinoin acid for 85mg/ (kg-d) by gavage, 19 rats of gallium chloride treatment group were administered with gallium chloride 25 mg/ (kg-d) by gavage, 12 rats of estrogen treatment group were give estradiol benzoate (0.2 μ g/kg, 3 times per week) by intraperitoneal injection. After treatment for 30days, the rats were killed. The content of MDA in serum was detected by TBA method. The apoptosis of osteocyte was detected by agarose gel electrophoresis. **RESULTS:** The apoptosis ratio of osteocyte in osteoporosis group rats was increased than the other three groups while the contents and molecular weight of DNA were decreased. The contents of MDA in osteoporosis group rats are significantly increased than the other groups. The content of DNA in gallium chloride treatment group rats was higher than that of the osteoporosis group rats. **CONCLUSIONS:** Gallium chloride can increase the DNA content of bone, through decreasing lipid peroxidation to suppress apoptosis of osteocyte.