

## ROLE OF EXERCISE IN PATIENTS WITH SYMPTOMATIC KNEE OSTEOARTHRITIS

KL Koh, Medical Student, International Medical University, Seremban, Malaysia

**Address for correspondence:** Koh Khai Luen, International Medical University, Jalan Rasah, 70300 Seremban, Negeri Sembilan, Malaysia.  
Email: [kkhailuen@hotmail.com](mailto:kkhailuen@hotmail.com)

Koh KL. Role of exercise in patients with symptomatic knee osteoarthritis. *Malaysian Family Physician*. 2008;3(3):155

### CASE SENARIO

Mrs. Z is a 56 years old Malay housewife with the past history of gastric ulcer and ischaemic heart disease presented with bilateral knee pain of gradual onset for the past 5 months. The pain is described as dull aching, increasingly in severity until that she is unable to walk and it worsened in the evening and after activity. She does not recall any injury to her knee, no morning stiffness and no pain in the other joint. She consulted a private GP recently and was given ibuprofen. However, she was unable to tolerate this due to the gastric pain. During this current consultation, she was given paracetamol and was referred to physiotherapy for further advice on exercise.

**Question:** Is exercise effective in improving function and reducing pain in patient with symptomatic knee osteoarthritis?

### COMMENTARY

Osteoarthritis is a major cause of impaired mobility in the elderly. Epidemiological data showed that there are approximately 25% of persons aged 55 years or older having knee pain on most days in a month for the past year.<sup>1</sup> Elderly adults with osteoarthritis look for ways to reduce their knee pain, to improve mobility and maintain independence, at the same time not suffering from the side effects of treatment. This is especially relevant as the commonly prescribed NSAIDs is contraindicated.

The systemic review by Fransen *et al* which included 17 trials with a total participants of 2562 concluded that land based therapeutic exercise reduced pain and improved function for patient with symptomatic osteoarthritis of the knee.<sup>2</sup> Roddy *et al* analysed 13 trials which compared the effectiveness of both aerobic walking and home based quadriceps strengthening exercise reduce pain and disability from knee osteoarthritis.<sup>3</sup> Again, they concluded that both aerobic and home based quadriceps training help in pain reduction and improvement in function.

Several evidence-based clinical practice guidelines recommend strengthening quadriceps and aerobic exercise for instance walking can improve function and reduce pain in patient with osteoarthritis of the knee.<sup>4,5</sup> In the latest guideline published by National Institute For Health and Clinical Excellence (NICE) 2008 advocated that exercise; which include both local muscle strengthening and aerobic fitness, should be the mainstay of non-pharmacology treatment for osteoarthritis patient.<sup>5</sup> There is not much between difference types of exercise or their intensity, but a class-based exercise programme followed by home-based exercises may be more effective than home exercises alone. Adherence to the exercise remain a challenge, hence the need for the family physician to reinforce this during clinic consultation.

In the case of Mrs Z, advice to walk regularly appears to be a sound advice; this will help not just her knee pain, but also improve her cardiovascular health.

### REFERENCES

1. Peat G, McCarney R, Croft P. Knee pain and osteoarthritis in older adults: a review of community burden and current use of primary health care. *Ann Rheum Dis*. 2001;60(2):91-7
2. Fransen M, McConnell S, Bell M. Therapeutic exercise for people with osteoarthritis of the hip or knee. A systematic review. *J Rheumatol*. 2002;29(8):1737-45
3. Roddy E, Zhang W, Doherty M. Aerobic walking or strengthening exercise for osteoarthritis of the knee? A systematic review. *Ann Rheum Dis*. 2005;64(4):544-8
4. Pendleton A, Arden N, Dougados M, *et al*. EULAR recommendations for the management of knee osteoarthritis: report of a task force of the Standing Committee for International Clinical Studies Including Therapeutic Trials (ESCISIT). *Ann Rheum Dis*. 2000;59(12):936-44
5. National Collaborating Centre for Chronic Conditions. Osteoarthritis: national clinical guideline for care and management in adults. National Institute for Health and Clinical Excellence, 2008. Full text available from: [www.nice.org.uk](http://www.nice.org.uk)