

treatment of the primary disease. The aim in this study was to assess the role of cryotherapy as part of a multidisciplinary treatment in patients with endobronchial metastases.

Methods. Between 1995 and 2011, 35 patients (23 men; age range 22–80 years) with endobronchial metastases (11 colorectal, 11 renal, 4 oesophageal, 9 other) received endobronchial cryotherapy under general anaesthetic via a rigid and fiberoptic bronchoscope (temperature 70 °C; exposure to probe 240 s, number of freezing cycles 1–4, number of procedures 1–5) as part of the multidisciplinary treatment for the primary tumour. The main presenting symptom was dyspnoea in 14, stridor in 9, haemoptysis in 7, and cough in 5 patients.

Findings. There were no peri-operative or in-patient deaths. Endobronchial cryotherapy was undertaken as a day-case procedure in more than 80% of cases.

Survival from starting cryotherapy was from 10 days to 4 years and 8 months, with a median of 34 weeks. Twenty-two patients reported a significant improvement in their main presenting symptom. In half the patients, endoluminal patency was increased by 50% or more after cryotherapy. Improvement allowed the majority of the patients to continue systemic treatment of their primary tumour.

Interpretation. Endoluminal cryotherapy is a safe and effective treatment modality in patients with symptoms secondary to endobronchial metastases. Cryotherapy gives rapid resolution of symptoms and can be undertaken as a day-case procedure in most patients. It improves the patient's condition, permitting systemic treatment of the primary tumour.

The authors declared no conflicts of interest.

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AOS8 EFFECTIVENESS OF AN EDUCATION-COMBINING EXERCISE PROGRAMME FOR CHEMOTHERAPY-RELATED FATIGUE IN WOMEN WITH BREAST CANCER

J. Mamom. *Faculty of Nursing, Thammasat University, Pratumthani, Thailand*

Background. In Thailand, breast cancer ranks the highest among all types of cancers and the number of cases is likely to continue increasing each year. Postsurgical chemotherapy to prevent cancer metastasis and eradicate cancer cells is associated with a favourable outcome. Despite its efficiency, the effects of the chemotherapy on various organ systems affect patients physically, cognitively, emotionally, and socially. Chemotherapy-related fatigue (CRF) occurs in 80–100% of patients with cancer during their chemotherapy and can affect their quality of life.

Methods. In this study we aimed to assess the effect of an education-combining exercise programme on fatigue in 40 patients with cancer who were given chemotherapy ($N=40$). Twenty patients were assigned to an education-combining exercise programme (experimental group) and 20 were assigned to normal medical treatment (control group). The patients and the research assistant were not aware of group assignments. The experimental instruments consisted of handbooks and pamphlet about chemotherapy-related fatigue and exercise practice. The data were analysed and presented using percentage, mean, standard deviation, Chi-square, and repeated measures analysis of variance (ANOVA).

Findings. The education-combining exercise programme significantly reduced the fatigue.

Interpretation. These results suggest that the cause of CRF is multifactorial and lends support to the use of the education-combining exercise programme. The use of this programme should be encouraged and

a standard manual should also be provided to help nurses in providing advice to patients.

The authors declared no conflicts of interest.

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AOS9 MORTALITY IN CHILDREN OF WOMEN DIAGNOSED WITH CANCER: A POPULATION BASED COHORT STUDY

J. Ang^a, H.M. Verkoijen^{b,d}, J. Liu^b, K. Czene^c, A. Salim^b, M. Hartman^{a,b,c,e}, ^a *Yong Loo Lin School of Medicine, Singapore*, ^b *Saw Swee Hock School of Public Health, National University of Singapore, Singapore*, ^c *Department of Surgery, Yong Loo Lin School of Medicine, National University Hospital, Singapore*, ^d *Department of Radiology, University Medical Center Utrecht, The Netherlands*, ^e *Department of Medical Epidemiology and Biostatistics, Karolinska Institute, Sweden*

Background. With increasing risks of cancer and improving chances of survival, an increasing number of female survivors are starting or extending their family post-diagnosis. The mortality risks in the offspring of mothers with a history of cancer were evaluated.

Methods. From the Swedish Multi-generation Register and the Cancer Register, we identified all 174,893 children whose mothers had been diagnosed with invasive cancer between 1958 and 2001. For these children, we calculated relative risks of death (standardised mortality ratios, SMRs) compared with the background population and assessed trends in SMRs.

Findings. With the exception of offspring of mothers with tobacco-related cancers (head and neck, thoracic, cervical; SMR 1.23 [95% confidence interval (CI) 1.13–1.33]), offspring of mothers with a history of cancer did not have increased mortality risk (SMR 1.00 [95% CI 0.97–1.03]). Children born within 1 year of their mother's diagnosis had an increased mortality risk (SMR 1.66 [95% CI 1.25–2.13]), particularly if their mother was primiparous at diagnosis of breast cancer (SMR of 11.07 [95% CI 2.09–27.13]). Offspring born more than 1 year after their mother's diagnosis of haemopoietic cancer were also at increased risk of death (SMR 2.07 [95% CI 1.10–3.35]).

Interpretation. Timing of childbirth in relation to the mother's diagnosis and type of cancer modifies mortality risks in the offspring. The increased mortality risk in children conceived around the time of the mother's diagnosis suggests a negative effect of the cytotoxic treatment on the offspring, which primiparous women are more likely to accept than women who have given birth before. Despite the high relative risks, absolute increases in mortality risks are small.

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AOS10 PROGNOSTIC FACTORS FOR PATIENTS WITH LEP-TOMENINGEAL METASTASES FROM SOLID TUMOURS

J. Kwon, E.K. Chie^{*}, K. Kim, H.J. Kim, H.G. Wu, I.H. Kim, D.Y. Oh, S.H. Lee, D.W. Kim, S.A. Im, T.Y. Kim, D.S. Heo, Y.J. Bang, S.W. Ha. *Seoul National University College of Medicine, Seoul, Republic of Korea*