C. de Miguel Benaldiba

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C. de Miguel Benaldiba with breast cancer adapted physical activity program in patients with lymphedema secondary to breast cancer

Introduction.– The estimate of the incidence of lymphedema in breast cancer patients varies from 11 to 65% according the outcome definition, assessment methods and follow-up. Moreover, there is little information on its severity at diagnosis.

Material and methods.– Survival analysis of breast cancer patients surgically treated between 2005 and 2009. Patients were examined at 1, 6 and 12 months after surgery and yearly thereafter. Signs and symptoms of lymphedema were systematically explored at each control. Both arms volume was obtained by the truncate cone formula. Lymphedema was classified as mild, moderate and severe (excess of volume <20%, 20%–40%, and >40% respectively). Lymphedema of hand and chest wall was also included.

Results.– Three hundred and seventy-one patients were followed a mean of 24.4 months and 124 (33.4%) developed lymphedema. Lymphedema appeared during the first year in 83.4% patients. The probability of lymphedema within 12, 24 and 36 months was 28.7% (95% CI 24.1–34.0%), 34.6% (95% CI 29.5–40.2%) and 38.3% (95% CI 32.8–44.3%), respectively. At diagnosis, lymphedema was mild in 78.5%, moderate in 19.0% and severe in 2.5%. Ninety-six patients (77.4%) needed lymphedema treatment.

Discussion.– The incidence and severity of lymphedema underlines the importance of systematic monitoring of these patients during at least the first year.

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Rehabilitation treatment protocol in patients with lymphedema secondary to breast cancer

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Keywords: Lymphedema; Breast cancer; Rehabilitation

Introduction.– Lymphedema is a common complication in patients with breast cancer. Treatment must be established as soon as possible to avoid complications and pain, minimize risk factors of lymphedema progression, maintenance of limb function and preserve patient’s quality of life.

Material and methods.– We performed, together with 38 physicians from 13 different specialties, after weekly meetings, a treatment protocol consisting of: prevention phase: Lymphedema’ School. Treatment phase: based on Contention Garments (CG) and Complex Decongestive Physical Therapy (CDT). Has two phases: intensive phase and maintenance phase. Recommended treatment according to stages: lymphedema stage I: CG; stage II–III: CDT. Intensive CDT should be done before lymphedema surgery, and 2 weeks after manual lymph drainage, adding CG during the 4th week.

Results.– We elaborated a Rehabilitation Treatment Protocol for patients with breast cancer and lymphedema.

Discussion.– We thought necessary to elaborate a Rehabilitation Treatment Protocol in order to help physicians manage with this common pathology.

Further reading


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CO67-006-e

Reduction of health risk factors through an adapted physical activity program in patients with breast cancer


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Keywords: Lymphedema; Breast cancer; Health risk factors; Sedentary

Introduction.– After a breast cancer diagnosis, patients are at high risk of reducing their physical activity (PA) and gaining weight. Both lack of PA and weight gain are known to be negative but modifiable prognostic factors. An observational study of a 3-month adapted PA program was performed to assess its benefits in terms of PA level improvement and reduction of risk factors related to health, during or after cancer treatments.

Methods.– Anthropometrics were measured at the beginning and the end of the program. PA profile, aerobic capacity and usual average daily energy expenditure were estimated using the PAQAP© questionnaire. Median values were compared using non-parametric tests.

Results.– Sixty-one (61) voluntary breast cancer patients attended 80% of the sessions. At baseline, median (minimum–maximum) body mass index was 23.3 (16.1–36.8) kg.m⁻². Waist circumference and waist circumference to height ratio showed metabolic risks. After 3 months, anthropometrics remained stable. Moderate PA significantly improved (+13 min/day) and sedentary tended to decrease (-18 min/day).

Discussion.– A 3-month adapted PA program allows patients with breast cancer to limit nutritional risk factors associated with negative prognosis. This study reinforces the need to promote PA as early as possible in breast cancer patients’ care.

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CO67-007-e

Musculoskeletal sequelae of solid tumours and cancer rehabilitation of children treated with intensive chemotherapie, surgery and radiation therapy

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Keywords: Childhood cancer; Long-term survivors; Cancer rehabilitation

Introduction.– Advances in diagnosis and treatment of childhood cancer have dramatically increased long-term survival and it is now evident that the disease and its treatment can significantly impair long-term health.

Material and methods.– Seventy-one patients at the mean age of 14.5 years with solid tumours were treated between 1987 and 2011 years, follow-up of 2 to 26 years. Eighteen patients had metastases, 11 patients had solitary metastases, 8–multiple. Treatment consisted of chemotherapy, radiotherapy, oncologic surgery, included limb-sparing procedures. The most common late effects we had observed were: scoliosis—in 63 cases, muscular hypoplasia—53, osteopenia—39, limb-length discrepancy in spite of usage of growing endoprosthesis—38, deformation of chest wall and limbs—23, pathological fractures—3, poor joint movement—40, neurological disturbance—15, lymphedema—5, deforming osteoarthrosis—in 2 cases. Sixteen patients had more, than 6 late effects. Twenty-one patients underwent individual combined rehabilitation program.

Results.– Long-term survival is possible, even for patients with metastatic disease. All long-term survivors of childhood cancer should attend a specialized therapy in rehabilitation clinic.

Discussion.– We suggest that the usage an individual rehabilitation program can enhance physical fitness and dramatically increase the quality of life.

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CO67-008-e

Effects of an adapted physical activity program with a playful pedagogy in a service of paediatric oncology
Introduction.– Cancer rehabilitation is becoming more of a focus for the field of physical therapy due to increased longevity and the side effects of treatment.

Material and methods.– In order to investigate the rehabilitation needs of children, chart analysis was conducted on 40 children (aged 2–19 years) treated for primary solid tumours by chemotherapy, radiotherapy, oncologic surgery, included limb-sparing procedures. Patients underwent a course of preoperative and postoperative inpatient physical therapy. This study evaluated the short and long-term changes in physical fitness of a child with a childhood malignancy; using an individual rehabilitation program, consist with combined physical exercise, kinesiotherapy, aquatic rehabilitation, psychosocial intervention implemented during and shortly after treatment. Training is performed individually, under the supervision of an experienced paediatric physical therapist.

Results.– We suggest that the usage an individual rehabilitation program can decrease pain, improve muscle strength and range of motion in joints, an increased supply of blood to the muscles, higher muscle metabolism, and more circulation in the limbs, improves tissue nutrition and helps the healing process.

Discussion.– Childhood cancer patients undergoing long-term cancer therapy may benefit from an individual rehabilitation program since it may maintain or enhance their physical fitness and increase their quality of life.

Keywords: Paediatric oncology; Solid tumour; Cancer rehabilitation

Posters

P411-e
Feasibility study of a program of adapted physical activities at home with children and adolescents treated for cancer
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Keywords: Pediatric oncology; Physical activity; Physical activity adapted; Home; VISIOAPA

Introduction and background.– Therapeutic advances in pediatric oncology possible to obtain a cure rate of 85% to the price of heavy treatments requiring frequent hospitalizations and/or prolonged. Physical activity (PA) controlled by containment and asthenia and leads to dramatic consequences on the body. The encouraging results of some studies on the effect of AP during hospitalization shoot CHU Montpellier since 2012 to propose an approach to maintaining fitness through sessions of Adapted Physical Activity (APA).

Objective.– While home care democratized with the recommendations of the Cancer Plan to minimize the time of hospitalization, the question to continue this program in APA home arose.

Methods.– In this context, the department worked with the innovative company V@SI, the establishment of a feasibility study of an APA program at home using the “VISIOAPA” tool.

Results.– The encouraging results of the pilot phase reveal the interest of such an approach in terms of accessibility to practice using new technologies and the satisfaction of moving home.

Discussion and conclusion.– Today, our goal is to prove the need for such a program throughout the course of care (hospital & home).

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P412-e
Cancer rehabilitation of children with solid tumours
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Keywords: Children; Quality of life; Physical reconditioning

Introduction.– The objective of the APAOP (Adapted Physical Activity in Paediatric Oncology) study is to assess through a multicentre randomized clinical trial the effectiveness of a program of adapted physical activity (APA), taught with an inspiring educational approach (playful, freedom of choice...) fitness (VO² Max, FC...), and quality of life related to health (HRQOL) of children and adolescents aged 6–18 years, treated for cancer.

Material and methods.– We postulate that motivation has a significant impact on the effects obtained following our initial study APOP that a crossover analysis showed a significant effect of adapted physical activity during hospitalization.

Results.– Thus, regardless of the respondent (n = 30), scores of quality of life related to health were significantly higher during hospital stays with APA for the following dimensions: physical function, role physical, mental health, self-esteem and general behaviour.

Discussion.– The ambition to achieve any multicentre study throughout the care pathway and after (follow-up 5 years) will confirm the importance of such APA program in improving the quality of life related to the health of children with a cancer and in most psychological and physical dimensions.

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P413-e
Assessment of clinical program “physical activity and breast cancer” (CHRU Lille – France)
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Keywords: Physical activity; Breast cancer

Introduction.– The benefits of physical activity are recognized to be effective for patients suffering from breast cancer.

Objective.– The purpose of our study is to assess the effects of practicing physical activity within 6 months among 16 cancer patients through a clinical program called “physical activity and breast cancer” conducted in the University Hospital Centre (CHRU) of Lille.

Methods.– We have assessed physical parameters (weights, cardiac parameters, lymphedema, and physical abilities), quality of life, anxiety, depression and fatigue.

Results.– We have demonstrated a significant improvement in the quadriceps muscular endurance (+21 sec, P = 0.002), in the quadratus lumborum (+7 sec, P = 0.049), in the heel-to-buttock distance (-3.5 cm, P = 0.042), and in the quality of life for the SF36 “physical activity” (+11 points, P = 0.034). The improvement was not significant for the other SF36 parameters as well as for the total fatigue (Piper fatigue scale), anxiety and depression (HAD scale). There has not been any significant variation of upper-extremity circumference.

Discussion-conclusion.– We regret a lack of statistical power mainly due to our small sample. Our results lead us to encourage women suffering from breast cancer to practice physical activity, and adapt our physical activity management.

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P414-e
Physical activity training for cancer patients
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Keywords: Breast cancer; Cancer rehabilitation

Introduction.– Cancer rehabilitation is becoming more of a focus for the field of physical therapy due to increased longevity and the side effects of treatment.

Material and methods.– In order to investigate the rehabilitation needs of patients, chart analysis was conducted on 40 children (aged 2–19 years) treated for primary solid tumours by chemotherapy, radiotherapy, oncologic surgery, included limb-sparing procedures. Patients underwent a course of preoperative and postoperative inpatient physical therapy. This study evaluated the short and long-term changes in physical fitness of a child with a childhood malignancy; using an individual rehabilitation program, consist with combined physical exercise, kinesiotherapy, aquatic rehabilitation, psychosocial intervention implemented during and shortly after treatment. Training is performed individually, under the supervision of an experienced paediatric physical therapist.

Results.– We suggest that the usage an individual rehabilitation program can decrease pain, improve muscle strength and range of motion in joints, an increased supply of blood to the muscles, higher muscle metabolism, and more circulation in the limbs, improves tissue nutrition and helps the healing process.

Discussion.– Childhood cancer patients undergoing long-term cancer therapy may benefit from an individual rehabilitation program since it may maintain or enhance their physical fitness and increase their quality of life.

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Discussion-conclusion.– We regret a lack of statistical power mainly due to our small sample. Our results lead us to encourage women suffering from breast cancer to practice physical activity, and adapt our physical activity management.

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