

panel comprising of the European Association of Palliative Care (EAPC), European Oncology Nursing Society (EONS), the Lance Armstrong Foundation (LAF) and OPENMinds (OM).

**Results:** Completion of the full pan-European data set is expected in June 2007. In the UK pilot study, 400 patients were screened and 50 in-depth questionnaires completed. Results revealed:

- Pain has a major impact on quality of life.
- The burden of pain is not appreciated by HCPs.
- Pain is not adequately controlled.
- Improved communication is urgently needed between patients and their HCPs.

**Conclusions:** The pilot study revealed that action is needed to improve communication between HCPs and cancer patients about issues surrounding the disease. As a result, the Cancer Tales workbook has been produced. It uses themes from the play Cancer Tales, which was developed from a collection of cancer patients' personal stories, to highlight key areas for improvement in communication about cancer, and provides guidance and practical exercises. The workbook was reviewed by a European editorial board of palliative care, pain management, oncology, nursing and communications specialists.

The EPIC survey and Cancer Tales workbook are sponsored by Mundipharma International Limited, Cambridge, UK, under the auspices of the EONS and the EAPC.

1130

POSTER

#### Association of borna disease virus infection with depression in cancer patients

C. Jehn<sup>1</sup>, L. Bode<sup>2</sup>, S. Pfeiffer<sup>3</sup>, H. Ludwig<sup>2</sup>. <sup>1</sup>Charite Berlin Mitte, Oncology, Berlin, Germany; <sup>2</sup>Robert-Koch-Institute, Virology, Berlin, Germany; <sup>3</sup>Charite Berlin Mitte, Immunology, Berlin, Germany

**Background:** Borna disease virus (BDV) is a RNA virus which can persistently infect neurons of the limbic system. Several seroepidemiologic data suggest an association of BDV with neuropsychiatric disorders, however inconsistent detectability has weakened a possible linkage. The objective of this cross-sectional study was to investigate, if an association exists between BDV infection and Major Depression (MD) in patients with advanced cancer receiving chemotherapy.

**Methods:** 55 inpatients (Pts) with metastatic cancer (Stage IV) were assessed by the Hospital Anxiety and Depression Scale (HADS) for depressive symptoms and diagnoses of major depression (MD) was established according to the DSM-IV criteria. IL-6, BDV-specific circulating immune complexes (CIC), antibodies and plasma antigens were determined by enzyme immunoassays (EIAs). In the statistical analysis the Mann-Whitney test and Spearman-Rho correlations were applied.

**Results:** 55 pts (age: 59.9 years; SD 10.2) had a mean Karnofsky index (KI) of 66.5% (SD 12.1). 26 pts had MD. Pts with MD showed a significant increase in BDV-specific antigens ( $p=0.050$ ) and antibodies ( $p=0.045$ ) and IL-6 ( $p<0.001$ ), compared to patients without MD. CIC were not increased in MD ( $p=0.53$ ). Depressive symptoms were more closely correlated with level of BDV antibodies ( $r=-0.296$ ;  $p=0.028$ ) and IL-6 ( $r=5.6$ ;  $p<0.001$ ) than symptoms of anxiety. Symptoms of anxiety showed a significant correlation to increased age ( $r=-0.28$ ;  $p=0.042$ ), whereas depressive symptoms correlated more closely with a decreased KI ( $r=-0.35$ ;  $p=0.011$ ). No correlations were found for level of symptoms vs. BDV-antigen or CIC.

**Conclusions:** In pts with metastatic cancer, MD is associated with increased levels of BDV-specific antigen and antibody. Symptoms of depression and anxiety are only correlated with increased levels BDV-antibody. Symptoms of anxiety seem to be related to age, whereas symptoms of depression are related to decreased KI.

1131

POSTER

#### Osteonecrosis of the jaw (ONJ) in patients treated with Bisphosphonates (BP): the experience of the "Rete Oncologica di Piemonte e Valle D'Aosta" (North-Western Italy)

V. Fusco<sup>1</sup>, M. Aglietta<sup>2</sup>, M. Donadio<sup>3</sup>, A. Berruti<sup>4</sup>, A. Baraldi<sup>5</sup>, C. Ortega<sup>2</sup>, A. Vandone<sup>3</sup>, C. Galassi<sup>6</sup>, O. Bertetto<sup>3</sup>. <sup>1</sup>Ospedale Santi Antonio e Biagio, SC Oncologia, Alessandria, Italy; <sup>2</sup>IRCC, SC Oncologia, Candiolo, Italy; <sup>3</sup>COES, SC Oncologia, Torino, Italy; <sup>4</sup>ASO S.Luigi, SC Oncologia, Orbassano, Italy; <sup>5</sup>Ospedale Santi Antonio e Biagio, SC Ematologia, Alessandria, Italy; <sup>6</sup>CPO, Epidemiologia, Torino, Italy

**Background:** BP are very useful drugs for treatment of myeloma, metastatic bone cancers, osteoporosis, Paget's bone disease. Reports of cases of ONJ in patients (pts) treated with BPs, mainly with Pamidronate (P) and Zoledronic Acid (Z), are increasing since 2003.

**Materials and Methods:** Our regional ONJ Study Group (including oncologists, haematologists, maxillofacial surgeons, odontostomatologists)

diffused information and guidelines for diagnosis and prevention of ONJ, even by meetings and newsletters. A case data collection form was mailed to regional specialist care centers.

**Results:** we identified (on March 2007) 142 cases of ONJ, after cross-checking reports from centres of maxillofacial surgery / ORL / odontostomatology (17), medical oncology (25) and haematology/internal medicine (14). Pts were affected by breast cancer (60), myeloma (45), prostatic cancer (19), other types of cancer (13), osteoporosis or Paget's disease (5). Pts characteristics: Sex: 53/89 M/F; median age 71 yrs (range 44–84). BP treatment (among 103 cases, with available data): Z in 72, P in 27 (19 "switched" to Z), alendronate/risedronate in 4. Clinical findings (exposed bone or infections, pain, mobile teeth, soft-tissue swelling, nonhealing fistulas) and dental comorbidities or precipitating events (as teeth extraction, periodontal surgery, dental implants, or traumatic use of dentures) were those described in recent ONJ literature. **Conclusions:** Our 142 cases, observed in a population of 4.3 million, are more than expected on the basis of some published estimations of incidence, for example those based on data concerning Australia (158 cases in a population of 20.3 million: 114 cancer pts, 44 with osteoporosis/Paget's disease) or even only South Australia (25 cases, out of 1.5 million) (Mavrokokki T et al, J.Oral Maxillofac. Surg. 2007). Our oncology network recommended screening of all pts under treatment with BPs, with panoramic X-rays and referral centre visit (w/o CT or MR scan in selected cases) and careful evaluation of pts candidate to be treated with BPs, with pretherapy dental care if necessary. A case-control study has been planned to search possible risk factors of ONJ (treatment- and clinical history-related). Prospective evaluation of incidence in future, after pretherapy dental care policy and avoiding (as possible) surgical dental procedures during BP treatment, is warranted. Trials about timing, duration, schedules of BP treatment are needed. The goal is optimize cost-effectiveness of BPs, preventing and minimizing a possible debilitating long-term side effect of a class of drugs otherwise very useful for cancer patients.

1132

POSTER

#### A large multicenter prospective randomised trial on the treatment of death rattle in terminal care

H. Wildiers<sup>1</sup>, C. D'haenckint<sup>2</sup>, P. Clement<sup>3</sup>, M. Desmet<sup>4</sup>, P. Demeulenaere<sup>5</sup>, R. Van Nuffelen<sup>3</sup>, E. Van Droogenbroeck<sup>6</sup>, F. Geurs<sup>7</sup>, J.P. Lobelle<sup>3</sup>, J. Menten<sup>3</sup>. <sup>1</sup>U.Z. Gasthuisberg, Department of Medical Oncology, Leuven, Belgium; <sup>2</sup>A.Z. Sint-Elisabeth, Palliative Care Unit, Turnhout, Belgium; <sup>3</sup>U.Z. Gasthuisberg, Palliative Care Unit, Leuven, Belgium; <sup>4</sup>A.Z. Virga Jesse, Palliative Care Unit, Hasselt, Belgium; <sup>5</sup>University of Antwerp, Palliative Care Unit, Antwerp, Belgium; <sup>6</sup>Stedelijk Ziekenhuis Aalst, Palliative Care Unit, Aalst, Belgium; <sup>7</sup>St. Maria Hospital Halle, Palliative Care Unit, Halle, Belgium

**Introduction:** death rattle is a frequent symptom (25–50%) in the terminal stage of life, but there is neither standardized treatment nor prospective investigation performed on the efficacy of anticholinergic drugs.

**Methods:** We designed a large multicenter prospective randomised trial in 6 Flemish Palliative Care Units. Informed consent was required from the patient or the legal trustee. At the occurrence of death rattle, patients were randomized between one of three frequently used anticholinergic drugs: (1) atropine 0.5 mg bolus s.c., followed by 3 mg/24 h. (2) Butylhyoscine bromide 20 mg bolus s.c., followed by 60 mg/24 h. (3) Scopolamine 0.25 mg bolus s.c., followed by 1.5 mg/24h. The intensity of death rattle, and side effects, were scored at 30 min, 1 h (primary endpoint), 4 h, 12 h, 24 h and further q24h. The rattle intensity score was: 0 = not audible; 1 = only audible near the patient; 2 = clearly audible at the end of the patients bed in a quiet room; 3 = clearly audible at a distance of 7 meters in a quiet room.

Intensity difference in rattle 1 h after start of therapy

Difference <sup>a</sup>	Number of patients			
	Atropine	Butylhyoscine bromide	Scopolamine	Total
-3	3	1	1	5
-2	13	9	7	29
-1	27	25	30	82
0.58	60	62	180	
1.6	8	5	19	
Total	107	103	105	315

<sup>a</sup>-3 indicates change from rattle grade 3 to grade 0, -2 from grade 3 to 1 or from grade 2 tot 0, etc.

**Results:** 315 patients recruited between 11–2001 and 11–2006 were eligible for analysis. The table contains the effectiveness data 1 hour after the start of the anticholinergic treatment and shows no statistical difference