1533 PUBLICATION

The effect of topical dimethylsulfoxide on surgical flaps

E. Yildirim[1], U. Berberoğlu[1], O. Çelen[1], E. Semerci[1], S. Kalkan[1].
[1]Department of Surgery, Ankara Oncology Hospital, Turkey, Ankara, Turkey

Purpose: Surgical flap necrosis is one of the most common problem after procedures such as mastectomies and ilioinguinal lymphadenectomies. In a prospective randomized study the effect of topical dimethylsulfoxide (DMSO) on skin flap viability was analized.

Methods: Seventy-two consecutive patients with breast cancer, malignant melanoma and metastatic squamous cell carcinoma who had skin flaps created during mastectomy or ilioinguinal lymphadenectomy were randomized to two groups. Topical DMSO was applied on surgical flaps of group-1, topical salin was applied on group-2. Ischemic areas (if occurred) were recorded during the follow-up period for each patient then excised and weighed.

Results: The mean weight of flap ischemia area was of 24.78 μg in DMSO-group and 150.94 μg in control-group ($p < 0.05$). The hospitalization time was 9.8 ± 0.45 (mean ± sem) days and 12.4 ± 0.8 days in DMSO and control groups, respectively ($p < 0.05$). There were no side effects due to DMSO.

Conclusion: The topical application of DMSO reduced skin flap ischemia and improved outcome of surgical flaps.

1534 PUBLICATION

Effect of amifostine on toxicities associated with induction chemotherapy and radiotherapy for head and neck and lung cancer

D. Antonadou[1], N. Bolanos[2], P. Komi[1], E. Kardamakis[1], M. Puglisi[1], G. Antypas[2], P. Karageorgis[1], N. Throuvalas[1]. [1]Radiation Oncology Department; [2]Thoracic Surgery Department, Metaxas Cancer Hospital, Piraeus; [3]Patras University, Patras, Greece

Purpose: To evaluate the efficacy and safety of Amifostine in patients referred for radiotherapy (XRT) following induction chemotherapy (CHT).

Methods: 38 patients with head and neck cancer and 45 patients with lung cancer were divided in two comparable groups (for age, stage of disease) $p > 0.1$. Group A ($n = 42$) were given daily 340 mg/m^2 Amifostine 30 ' before XRT. Group B ($n = 41$) XRT. All patients had undergone induction CHT before XRT. The total XRT dose was determined by the sites and stage of the disease (daily 2 Gy/5 times per week).

Results: Acute and late toxicity was evaluated weekly during XRT and follow up with the RTOG morbidity scoring criteria. Esophagitis grade ≥ 2: group A week 5 35%, week 6 40% versus 75% and 76% in group B ($p = 0.0003$ week 5, $p = 0.0012$ week 6). Mucositis grade ≥ 3: group A week 5 43%, week 6 35% versus 65% and 72% in group B ($p = 0.036$ week 5, $p = 0.0006$ week 6). Xerostomia grade ≥ 2: group A two months post XRT 35% versus 74% in group B ($p = 0.0006$). Them were no differences between the two groups in clinical outcome.

Conclusion: The data suggests that amifostine is effective in decreasing acute and late XRT toxicities in patients with previous XRT.

1535 PUBLICATION

Selective decrease of vepeside toxicity by uroprotector mesna (uromitexan)

T. Bogush[1], E. Koldaeva[1], E. Bogush[1]. [1]Russian Blokhin Cancer Research Center, Department of Medical Chemistry, Moscow, Russian Federation

Modern cancer therapy produces substantial toxicity which limits the effectiveness of treatment. Chemoprotective agents offer opportunities to reduce the treatment-related toxicity and increase the dose and dose intensity of chemotherapy. Thiol compound mesna reducing oxazophosphorine urotoxicity is almost ideal protective agent because it has no side and carcinogenic effects in protective doses and may inhibit growth of several human malignant cell lines in vitro. Taking into account these facts the purpose of this study was to determine mesna influence on toxic and antitumor action of vepeside (VP) which is one of the most important anticancer agents but associated toxicity continues to limit its potential usefulness.

Results: In acute toxicological experiments in mice we have shown that the number of survival animals and survival time of VP-treated mice receiving mesna was more than 2-fold higher as compared to no mesna. LD100 VP injected with mesna was LD50 or even less as compared to no mesna and the alive animals had no signs of toxicity during two months period of observation. The manifestation of VP gastro-intestinal toxicity as well as signs of conjuctivitis were significantly lower after VP + mesna injections as compared to VP only even in LD100 of VP. In L1210 leukaemia-bearing mice we have shown that mesna does not decrease antitumor effect of VP but does increase it.

Conclusion: Mesna is not only an effective antitoxic modifier of oxazophosphorines but selectively reduces various toxic VP manifestations as well. Clinical trials of this perspective antitoxic VP modifier would be recommended. Supported by Russian Foundation for Basic Researches.

1536 PUBLICATION

Vinorelbine (Navelbine – NVB) induced skin and subcutaneous reactions

E. Kaner[1], D. Bobilev[1], I. Leshinski[1], A.D. Cohen[2], Y. Cohen[1].
[1]Department of Oncology; [2]Department of Dermatology; Soroka University Medical Center, Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel

Purpose: Within a few months we observed many patients (pts) with unusual immediate or delayed skin and or subcutaneous reaction to intravenous injection of NVB given as a single agent for metastatic breast cancer (24 pts) or combined with cisplatin for locally advanced or metastatic non small cell lung cancer (26 pts). This retrospective study was aimed to evaluate the magnitude of the adverse skin and subcutaneous reactions to NVB.

Methods: 50 pts were given IV NVB. 30 mg/m^2 diluted in 50 ml saline solution or D-5-W was infused over 6–10 minutes after flushing the vein with saline. After NVB administration the vein was washed with up to 500 ml saline. Treatment was repeated weekly, or biweekly in pts with hematological toxicity. Nursing notes were retrospectively analyzed from pts' files.

Results: Total number of NVB injections was 517, of which 167 were given via implanted venous port. In 25 pts (50%) immediate or delayed reactions were observed (3 cases of extravasation were excluded). In 20 pts the adverse skin reaction occurred only once, in 4 pts twice, and in 1 patient 3 times. The reaction consisted of erythema along the course of the veins. Later, in some of the pts there were bullae formation with pain, which became ulcerated and healed slowly with skin pigmentation, lasted several months. The reaction occurred at random with no correlation to the number of previously NVB treatments. No adverse reactions were observed in pts treated via implanted venous port. We do not yet have an explanation for these side effects.

1537 PUBLICATION

G-CSF is of little benefit as secondary prophylaxis with liposomal anthracycline in HIV-associated Kaposi's sarcoma

J. Morgan, S. Clark, E. Smith, K. Fife, M. Bower. Chelsea & Westminster Hospital, Department of Oncology, London, United Kingdom

Purpose: To evaluate the role of G-CSF as secondary prophylaxis with liposomal anthracyclines (LA) in HIV-associated Kaposi's sarcoma (KS).

Method: A clinical record review of patients receiving LA for KS in last 2 years.

Results: 33 patients were treated with liposomal doxorubicin (Caelyx) 20 mg/m^2 every 3 weeks or liposomal daunorubicin (Daunoxome) 40 mg/m^2 every 2 weeks. 232 cycles of LA have been administered (159 Caelyx, 73 Daunoxome). Neutropenia (PMN $< 1.0 \times 10^6$/ml) was present at the start of 21 (9%) LA cycles, and G-CSF (Filgrastim 300 mcg sc od for 3–5 days) was prescribed as secondary prophylaxis with 17 (7%) cycles. There was no difference in neutropenia ($p = 0.2$) or use of G-CSF ($p = 0.4$) between Caelyx and Daunoxome. 22 infectious episodes were documented and were more frequent if PMN $< 1 \times 10^6$/ml at the start of the cycle ($p = 0.009$). The median PMN increment by the start of the next cycle in neutropenic patients who received G-CSF secondary prophylaxis was not significantly greater than when G-CSF was not used ($p = 0.37$). Secondary prophylaxis did not influence the rate of infection in patients who were neutropenic at the start of the cycle ($p = 0.36$).

Conclusion: Only 9% of LA cycles were complicated by infection despite myelosuppression being the major reported toxicity and 9% of cycles administered when PMN $< 1.0 \times 10^6$/ml. There was no clinical benefit from prescribing G-CSF as secondary prophylaxis and it appeared safe to administer LA in the presence of neutropenia.