**30522922\_PD.txt**

Title: Brentuximab vedotin with chemotherapy for CD30-positive peripheral T-cell lymphoma (ECHELON-2): a global, double-blind, randomised, phase 3 trial.

Publication Type: Journal Article

Journal-Name:Lancet (London, England)

Journal ID: 2985213R

Publication date: 2018/11/08 00:00 [accepted]

BACKGROUND: Based on the encouraging activity and manageable safety profile observed in a phase 1 study, the ECHELON-2 trial was initiated to compare the efficacy and safety of brentuximab vedotin, cyclophosphamide, doxorubicin, and prednisone (A+CHP) versus cyclophosphamide, doxorubicin, vincristine, and prednisone (CHOP) for the treatment of CD30-positive peripheral T-cell lymphomas. METHODS: ECHELON-2 is a double-blind, double-dummy, randomised, placebo-controlled, active-comparator phase 3 study. Eligible adults from 132 sites in 17 countries with previously untreated CD30-positive peripheral T-cell lymphomas (targeting 75% with systemic anaplastic large cell lymphoma) were randomly assigned 1:1 to receive either A+CHP or CHOP for six or eight 21-day cycles. Randomisation was stratified by histological subtype according to local pathology assessment and by international prognostic index score. All patients received cyclophosphamide 750 mg/m(2) and doxorubicin 50 mg/m(2) on day 1 of each cycle intravenously and prednisone 100 mg once daily on days 1 to 5 of each cycle orally, followed by either brentuximab vedotin 1.8 mg/kg and a placebo form of vincristine intravenously (A+CHP group) or vincristine 1.4 mg/m(2) and a placebo form of brentuximab vedotin intravenously (CHOP group) on day 1 of each cycle. The primary endpoint, <P 0, 1> progression-free survival </> according to blinded independent central review, was analysed by intent-to-treat. This trial is registered with ClinicalTrials.gov, number NCT01777152. FINDINGS: Between Jan 24, 2013, and Nov 7, 2016, 601 patients assessed for eligibility, of whom 452 patients were enrolled and 226 were randomly assigned to both the A+CHP group and the CHOP group. Median <P 0, 1> progression-free survival </> was 48.2 months (95% CI 35.2-not evaluable) in the A+CHP group and 20.8 months (12.7-47.6) in the CHOP group (hazard ratio 0.71 [95% CI 0.54-0.93], p=0.0110). <P 38> Adverse events </>, including incidence and <P 0>(E2) severity of <P 0> febrile neutropenia </> (41 [18%] patients in the A+CHP group and 33 [15%] in the CHOP group) and <P 0> peripheral neuropathy </> (117 [52%] in the A+CHP group and 124 [55%] in the CHOP group), were similar between groups. <P 1, 38> Fatal adverse events </> occurred in seven (3%) patients in the A+CHP group and nine (4%) in the CHOP group. INTERPRETATION: Front-line treatment with A+CHP is superior to CHOP for patients with CD30-positive peripheral T-cell lymphomas as shown by a significant improvement in <P 0, 1> progression-free survival </> and <P 1> overall survival </> with a manageable safety profile. FUNDING: Seattle Genetics Inc, Millennium Pharmaceuticals Inc, a wholly owned subsidiary of Takeda Pharmacuetical Company Limited, and National Institutes of Health National Cancer Institute Cancer Center.

**30524185\_PD.txt**

Title: Efficacy of a New Crosslinked Hyaluronan Gel in the Prevention of <P 0> Intrauterine Adhesions </>.

Publication Type: Randomized Controlled Trial

Journal-Name:JSLS : Journal of the Society of Laparoendoscopic Surgeons

Journal ID: 100884618

Publication date: 2019/01/27 06:00 [medline]

Background and Objectives: The authors sought to assess the effect of the use of a new crosslinked hyaluronan (NCH) gel on the prevention of <P 0> intrauterine adhesions (IUAs) </> in women underwent curettage in the second trimester. Methods: Between June 2016 and September 2017, 60 patients who underwent curettage for retained placental tissue after medically induced or spontaneous pregnancy loss in the second trimester were enrolled in the study. The patients were randomly assigned to 1 of 2 groups: Group 1 patients received curettage plus NCH gel (intervention group), and group 2 patients received curettage alone (control group). The main outcomes were the rate and <P 0>(E2) severity of <P 0> intrauterine adhesions </> formation, which were assessed by follow-up hysteroscopy performed in the ensuing 2-6 months. Results: The hysteroscopic findings were available for 20 patients in group 1 and 28 patients in group 2. <P 0> intrauterine adhesions </> were observed in 6 patients in group 2, while no <P 0> intrauterine adhesions </> was observed in group 1 (P = .007). <P 0> intrauterine adhesions </> were staged as mild in 4 patients (14.28%) and moderate in 2 patients (7.14%) in group 2 according to the American Fertility Society classification of IUAs. Conclusions: Our study demonstrates that NCH gel appears to be able to reduce the formation of <P 0> intrauterine adhesions </> in women who undergo curettage in the second trimester, although larger controlled, randomized, multicenter studies are needed to confirm these results.

**30541217\_PD.txt**

Title: [Effects of berberine on the serum <P 0> cystatin C </> levels and urine <P 0> albumin/creatine ratio </> in patients with type 2 diabetes mellitus].

Publication Type: Randomized Controlled Trial

Journal-Name:Zhonghua yi xue za zhi

Journal ID: 7511141

Publication date: 2019/03/06 06:00 [medline]

Objective: To investigate the effects of berberine on urine <P 0> albumin/creatine ratio (UACR) </> and serum <P 0> cystatin C (Cys C) </> in patients with type 2 diabetes mellitus (T2DM). Methods: A total of 114 T2DM inpatients or outpatients, including 46 males and 68 females aged (55+/-14) years between January 2015 and January 2016 were randomly divided into two groups: the control group (n=57) only with hypoglycemic agents, and the intervention group (n=57) with berberine (0.4 g, 3 times a day) on the basis of treatment from the control group. Both groups were treated and followed up for six months. All the clinical and biochemical parameters were routinely evaluated before and after treatment. And the safety of berberine was assessed. Results: After the treatment, the improvement of <P 0> glycosylated hemoglobin (HbA1c) </>, <P 0> blood urea nitrogen (BUN) </>, <P 0> systolic pressure </> (SP), <P 0> high sensitive C-reactive protein (hs-CRP) </>, <P 0> erythrocyte sedimentation rate (ESR) </>, <P 0> estimated glomerular filtration rate (eGFR) </> in the intervention group were significantly better than those in the control group (all P<0.05), as well as the urine <P 0> albumin/creatine ratio </> [47(26, 120) mg/g vs 103(42, 267) mg/g, P<0.001]and serum <P 0> cystatin C </> [(0.83+/-0.30) mg/L vs (0.98+/-0.25) mg/L, P=0.031]. However, there was no statistically significant difference of urine <P 0> albumin/creatine ratio </> and <P 0> cystatin C </> between before and after treatment in the control group (all P>0.05). Compared to the control group, the patients in the intervention group had lesser urine <P 0> albumin/creatine ratio </> [47(26, 120) mg/g vs 68(28, 158) mg/g, P=0.039], and lower serum <P 0> cystatin C </> [(0.83+/-0.30) mg/L vs (0.96+/-0.30)mg/L, P=0.041]. Berberine had no obvious <P 38> adverse effects </>. Multiple linear regression analysis revealed that the berberine administration was independently associated with the reduction of urine <P 0> albumin/creatine ratio </> (beta=-0.051, P=0.041) and <P 0> cystatin C </> (beta=-0.068, P=0.033) in T2DM patients. Conclusion: Berberine improves diabetic kidney disease by reducing urine <P 0> albumin/creatine ratio </> serum <P 0> cystatin C </> and serum <P 0> cystatin C </> in T2DM patients, and it was safe.

**30541219\_PD.txt**

Title: [<P 32> Feasibility </> of supraglottic tracheal tube ventilation during painless fiberbronchoscopy].

Publication Type: Randomized Controlled Trial

Journal-Name:Zhonghua yi xue za zhi

Journal ID: 7511141

Publication date: 2019/03/06 06:00 [medline]

Objective: To evaluate the <P 32> feasibility </> and safety of supraglottic tracheal tube ventilation by comparing with modified laryngeal mask airway ventilation during painless fiberbronchoscopy. Methods: This was a prospective study. Twenty-eight patients undergoing painless fiberbronchoscopy in Hangzhou First People's Hospital were randomly divided into 2 groups(n=14): supraglottic tracheal tube ventilation(group A) and modified laryngeal mask airway(group B). Mean <P 0> arterial pressure </> (MAP), <P 0> heart rate (HR) </>, <P 0> peripheral capillary oxygen saturation SpO(2) </>, <P 0> partial pressure of exhaled carbon dioxide P(ET)CO(2) </> and [T bispectral index (BIS)] were recorded after entering the operating room(T(0)), after anesthesia induction(T(1)), immediately after inserting laryngeal mask airway or tracheal tube(T(2)), fiberbronchoscopy inserting(T(3)), at the end of the operation(T(4)), and at the recovery of patients' consciousness(T(5)). The <P 0> arterial carbon dioxide partial pressure PaCO(2) </>), the <P 32> time spent in successful positioning of the tube </>, the <P 32> endoscope indwelling duration </>, <P 32> operative time </>, <P 32> tube drawing time </>, patients' <P 0> awakening time </>, <P 32> satisfaction </> of operators, <P 38> adverse events </> during anesthesia, the numbers of <P 0> bucking </> or <P 0> body moving </> were also recorded.The <P 36> dose </> of propofol and remifentanil were also statisticed. Results: <P 0> P(ET)CO(2) </> in group A at T(0), T(1), T(2), T(3), T(4), T(5) were (36.9+/-4.1), (36.3+/-4.7), (38.1+/-5.6), (40.4+/-4.0), (48.8+/-7.7), (45.3+/-7.6) mmHg, <P 0> P(ET)CO(2) </> in group B were (38.6+/-4.4), (37.8+/-5.6), (37.8+/-5.4), (37.4+/-6.7), (43.3+/-12.2), (43.5+/-8.0) mmHg, at the end of operation, the <P 0> P(ET)CO(2) </> at T(4) and T(5) were significantly higher than at T(0) in group A and group B (F=14.582, 12.651, all P<0.05). The <P 0> PaCO(2) </> in group A was (62.0+/-4.7) mmHg , which was significantly higher than group B at the end of operation[(51.9+/-4.2) mmHg, t=2.432, P<0.05]. The <P 32> time spent successfully positioning the insertion </> in group A and group B were (17.6+/-7.5), (29.8+/-13.6)s, the <P 32> endoscope indwelling duration </> were(0.8+/-0.1), (1.4+/-0.3)min, and the <P 32> operation time </> were(32.3+/-4.3), (46.8+/-4.8)min, there were significantly difference between group A and group B(t=2.670, 2.214, 2.166, all P<0.05). There were no significantly difference of the numbers of <P 0> bucking </> or <P 0> body moving </> , the <P 32> satisfaction </> of operators and patients, and <P 38> adverse events </> (all P>0.05). Conclusion: Supraglottic tracheal tube ventilation for painless fiberbronchoscopy is a safe and effective procedure.

**30541220\_PD.txt**

Title: [Comparison of effects of two anesthesia methods on the first night <P 0> sleep quality </> in middle-aged and elderly patients undergoing surgery for lower extremity varicose vein].

Publication Type: Journal Article

Journal-Name:Zhonghua yi xue za zhi

Journal ID: 7511141

Publication date: 2019/03/06 06:00 [medline]

Objective: To investigate effects of two anesthesia methods on the first night <P 0> sleep quality </> in middle-aged and elderly patients after surgery. Methods: This was a prospective study conducted from November 2017 to March 2018. Sixty patients, aged 50-70, undergoing elective surgery for unilateral lower extremity varicose vein at Ningbo No.2 Hospital, with American Society of Anesthesiologists (ASA) grade or , were enrolled and randomly allocated to two groups (n=30), general anesthesia group and spinal anesthesia group. On the first day before surgery, the patient's general data were collected and the [T Pittsburgh <P 0> sleep quality </> index (PSQI)] was used to assess the patient's <P 0> sleep status </> in the past month. The postoperative <P 0> mean arterial pressure (MAP) </>, <P 0> heart rate (HR) </> and <P 0> pulse oxygen saturation (SpO(2)) </> in the ward were recorded with a multi-function monitor on first night after surgery. The <P 0> total sleep time </> and <P 0> arousal time </> were obtained by [T bispectral index (BIS)] monitoring from 20: 00 (the first day) to 6: 00 (the second day). Athens <P 0> Insomnia </> Scale (AIS) was recorded at 18: 00 at the second day after surgery. Results: There was no significant difference in general data and [T Pittsburgh <P 0> sleep quality </> index] scale scores between the two groups of patients (all P>0.05). And there were no significant differences in <P 0> mean arterial pressure </>, <P 0> heart rate </>, <P 0> pulse oxygen saturation </> and [T bispectral index (BIS)] every 2 hours between the two groups from 20: 00 (the first day) to 6: 00 (the second day)(all P>0.05). Compared with the general anesthesia group, the first night of <P 0> total sleep time </> in the spinal anesthesia group was significantly shorter[(357.2+/-83.4)min vs (275.1+/-64.8)min, t=-9.635, P<0.05], while the rate of <P 0> wakefulness </>, <P 0> total sleep time </>, <P 0> overall sleep quality </>, <P 28> daytime mood </> and <P 25> daytime physical function </> were significantly higher[(25.9%, 22.2%, 25.9%, 18.5%18.5%) vs (51.7%, 51.7%, 55.2%, 48.3%44.8%), chi(2)=3.901, 5.192, 4.941, 5.523 and 4.437, all P<0.05], and the cases of postoperative <P 0> urinary retention </> and <P 0> lower limb discomfort </> were significantly higher[(8 and 6) vs (1 and 0), all P<0.05]. Conclusion: Both anesthesia methods can be safely and effectively applied to middle-aged and elderly patients with lower extremity varicose veins surgery, but patients with general anesthesia show fewer <P 38> adverse reactions </> on the first night after surgery and have better <P 0> sleep quality </>.

**30541221\_PD.txt**

Title: [Effect of dexmedetomidine on perioperative <P 0> stress </> and postoperative <P 0> pain </> in patients with radical resection of esophageal cancer under combined thoracoscope and laparoscope].

Publication Type: Randomized Controlled Trial

Journal-Name:Zhonghua yi xue za zhi

Journal ID: 7511141

Publication date: 2019/03/06 06:00 [medline]

Objective: To investigate the effects of dexmedetomidine on perioperative <P 0> stress </> and postoperative <P 0> pain </> in patients with radical resection of esophageal cancer under combined thoracoscope and laparoscope. Methods: In this prospective study, one hundred patients undergoing radical resection of esophageal cancer in Affiliated Cancer Hospital of Zhengzhou University from January 2016 to October 2017, were randomly divided into control group (group C) and dexmedetomidine group (group D), n=50. All patients were anaesthetized (induced and maintained) with intravenous target-controlled infusion(TCl) of propofol and remifentanil, and intermittent intravenous injection of cisatracuriumbesylate. Bispectral index(BIS) was used to monitor the depth of anesthesia and maintained between 45-60 during operation.All patients received sufentanil (0.3 mug/kg) 30 min before the end of the operation and then received intravenous analgesia pump for postoperative patient controlled analgesia(PCA). Patients in group D received intravenous infusion of dexmedetomidine(1 mug/kg) 20 min before anesthesia induction, followed by intravenous pumping of dexmedetomidine(0.2 mug.kg(-1).h(-1)) intraoperatively.Postoperative intravenous patient-controlled analgesia(PCA) was performed in all patients, with background doses of sufentanil 0.04 mug. kg(-1).h(-1) for patients in group C, and sufentanil 0.025 mug.kg(-1).h(-1) plus dexmedetomidine 0.1 mug. kg(-1).h(-1) for patients in group D. The <P 32> operation time </>, <P 0>(S1) liquid input and <P 0> output </> during operation, the number of patient controlled <P 36> analgesia </> (PCA) pressings after operation were recorded. At these time points: T(0)(the day before operation), T(1)(immediate before anesthesia induction), T(2)(1 h after emergence), T(3)(24 h after operation), T(4)(3 d after operation), T(5)(7 d after operation), T(6)(one month after operation), T(7)(3 months after operation) and T(8)(6 month after operation) , venous blood samples of patients were collected for detection of <P 0> epinephrine </>, <P 0> norepinephrine </> and <P 0> corticosterone </>. The <P 0> pain </> visual analogue scale(VSA) was used to assess <P 0> pain </> levels in patients at T(2), T(3), T(4), T(5), T(6), T(7), T(8). Results: The age, sex ratio, body mass index (BMI) and ASA grading ratio in two groups were not significantly different(all P>0.05). There were no Significant differences in <P 32> operation time </>, <P 0> liquid input </> and <P 0> blood output </> between group C and group D(all P>0.05). Within 24 h after operation, the <P 36> sufentanil consumption </> in group D[(35.86+/-8.65)mug]was significantly less than that in group C[(59.53+/-15.26) mug, t=7.061, P<0.05], and the number of patient controlled <P 36> analgesia </> pressing in group D(2.15+/-1.38) was obviously less than that in group C(5.85+/-2.16, t=4.971, P<0.05). Compared with group C, serum <P 0> norepinephrines </> in group D was significantly less (t=13.276, 16.027, 14.319, 12.771, 12.296, respectively; all P<0.05) at T(1), T(2), T(3), T(4), T(5).And there were no difference between these two groups at T(0), T(6), T(7), T(8)(all P>0.05). Serum <P 0> epinephrine </> in group D were significantly lower than them in group C at T(2), T(3), T(4), T(5) (t=6.153, 8.774, 9.127, 8.409, respectively; all P<0.05), but there were no difference between these two groups at T(0), T(1), T(6), T(7), T(8)(all P>0.05). Serum <P 0> corticosterone </> in group D were sharply less than them in group C at T(2), T(3), T(4), T(5) (t=16.364, 15.306, 12.153, 12.592, respectively; all P<0.05), but at T(0), T(1), T(6), T(7), T(8), there were no difference between these two groups (all P>0.05). Compared with group C, the number of patients with postoperative <P 0> pain </> (VAS score>/=4) in group D was obviously less at T(6), T(7), T(8)(10 vs 20, 4 vs 12, 3 vs 10; chi(2)=4.762, 4.762, 4.332, respectively; all P<0.05). Conclusion: Perioperative application of dexmedetomidine can effectively decrease the perioperative <P 0> stress </> response, obviously cut down the perioperative <P 36> opioid consumption </>, and prevent the transition from postoperative <P 0> acute pain </> to <P 0> chronic pain </> in patients with radical resection of esophageal cancer under combined thoracoscope and laparoscope.

**30541376\_PD.txt**

Title: Can Reproductive Life Plan-based counselling increase men's <P 29> fertility awareness </>?

Publication Type: Randomized Controlled Trial

Journal-Name:Upsala journal of medical sciences

Journal ID: 0332203

Publication date: 2018/12/14 06:00 [entrez]

BACKGROUND: Many men have limited knowledge about reproductive health and fertility. The aim of the study was to evaluate if Reproductive Life Plan (RLP)-based counselling during a sexual health visit could increase men's <P 29> fertility awareness </>. MATERIAL AND METHODS: The study was a randomized controlled trial including 201 men aged 18-50 who visited either of two participating sexual health clinics in Sweden for sexually transmitted infection testing during 2014-2016. All men received standard care, and men in the intervention group (IG) also received oral and written RLP-based information about lifestyle and fertility. <P 29> Awareness about fertility </> and <P 25, 33> lifestyle-related factors </> were the main outcomes, measured through a questionnaire before the intervention and through a telephone survey after three months. <P 32> Impressions </> from the counselling were also assessed at follow-up. RESULTS: A majority (71%) of men <P 29> wanted children </> in the future. General <P 29> fertility awareness </> increased from a mean score of 4.6 to 5.5 out of 12 (P = 0.004) in the IG. The mean number of accurate <P 25, 33> lifestyle factors </> (that could affect fertility) mentioned increased from 3.6 to 4.4 (P < 0.001) in the IG. There were no improvements in the control group. Among the men in the IG, 76% had a <P 32> positive experience </> of the counselling, and 77% had <P 29> received new information </>. CONCLUSION: The intervention managed to increase different aspects of men's <P 29> fertility awareness </>. In the future, the format for preconception care for men needs further development. Including men in preconception health policy guidelines and identifying suitable actors for care provision would be important first steps.

30541563\_PD.txt

Title: Effectiveness and cost-effectiveness of a loyalty scheme for <P 25> physical activity </> behaviour change maintenance: results from a cluster randomised controlled trial.

Publication Type: Randomized Controlled Trial

Journal-Name:The international journal of behavioral nutrition and physical activity

Journal ID: 101217089

Publication date: 2018/12/14 06:00 [entrez]

BACKGROUND: We evaluated the effectiveness and cost-effectiveness of a loyalty scheme based intervention involving rewards for increasing <P 25> physical activity </> in public sector employees. METHODS: A cluster randomised wait-list controlled trial in public sector organisations in Northern Ireland. We randomly assigned clusters (1:1) using a computer generated random sequence. Researchers were masked to allocation, but participants were not. Employees aged 18-65 years with no self-reported medical contraindications to physical activity were included. The Physical Activity Loyalty Scheme (PAL) intervention was based on high-street loyalty cards where participants earned points for minutes of <P 25> activity </> that could be redeemed for rewards, complemented by evidence-based behaviour change techniques. The primary outcome was objectively measured mean <P 25> steps/day </> at 6 months using a validated pedometer (Yamax Digi-Walker CW-701) over 7 days, assessed with intention to treat analysis. Secondary outcomes included <P 0> health </>, <P 28> mental wellbeing </>, <P 30> quality of life </>, <P 27>(S1) work absenteeism and <P 27> presenteeism </>, and <P 34> use of healthcare resources </>. Cost-effectiveness, cost-benefit and mediation analyses were conducted. Trial registered with Current Controlled Trials, number ISRCTN17975376. RESULTS: Between September 2014 and October 2015, we recruited and randomly assigned 37 clusters (from nine organisations; mean clusters per organisation = four) and 853 participants to the intervention (n = 19 with 457 participants) or control group (n = 18 with 396 participants). Primary outcome data were available for 249 (54.4%) intervention and 236 (59.6%) control participants. Mean <P 25> steps/day </> were significantly lower in the intervention vs control group (adjusted mean difference = - 336, 95% CI: -612 to - 60, p = 0.02) at 6 months. Participants redeemed only 39% (SD 43%) of their earned points. Using the Quality Adjusted Life Year outcome, the intervention was not cost effective from an NHS/PSS perspective. A net <P 34> cost </> analysis from an employer perspective demonstrated the intervention group was associated with a mean of 2.97 h less <P 27> absenteeism </> over a 4 week period (p = 0.62), which could result in net savings ranging from pound66 to pound735 depending on the wage rate employed. At 4-weeks post-baseline there were significant increases in <P 29> identified regulation </>, <P 29> integrated regulation </>, <P 29> intrinsic motivation </>, <P 26> social norms </> and <P 29> intentions </> in intervention compared to control participants. CONCLUSIONS: Our mixed results pose challenges that are too infrequently exposed in public heath intervention trials. Although the intervention successfully altered several hypothesised mediating constructs it did not translate into long-term behaviour change. Our incentive level may have been too low to incentivise change, despite being designed a priori by a Contingent Valuation Survey. There were also major re-structuring of several organisations which presented significant implementation challenges, and technical limitations. TRIAL REGISTRATION: ISRCTN17975376 (Registered 19/09/2014).

30541572\_PD.txt

Title: Efficacy of a nootropic spearmint extract on <P 25> reactive agility </>: a randomized, double-blind, placebo-controlled, parallel trial.

Publication Type: Randomized Controlled Trial

Journal-Name:Journal of the International Society of Sports Nutrition

Journal ID: 101234168

Publication date: 2018/12/14 06:00 [entrez]

BACKGROUND: Proprietary spearmint extract (PSE) containing a minimum 14.5% rosmarinic acid and 24% total phenolic content, has evinced positive effects on cognition in individuals aged 50-70 with memory impairment after chronic supplementation. To address the growing interest in connecting mental and physical performance, the present study examined whether the nootropic effects of PSE translate into changes in <P 25> reactive agility </> following daily supplementation with PSE. METHODS: Utilizing a randomized, double-blind, placebo-controlled, parallel design, healthy, recreationally-active men and women (n = 142) received 900 mg of PSE or placebo (PLA) daily for 90 days. <P 25> Reactive agility </>, our primary outcome, was determined by measuring the number of <P 25> hits </> and average <P 25> reaction time </> (ART) on a Makoto Arena II, a 360(0) audio-visual device that measures <P 25>(E4) stationary, <P 25> lateral, and <P 25> multi-directional active choice reaction performance </>. Safety was evaluated using complete <P 0> blood count </>, comprehensive <P 0> metabolic panel </>, and <P 0> blood lipids </>. Measurements were evaluated on days 7, 30, and 90 of supplementation. RESULTS: An overall treatment effect (p = 0.019) was evident for increased <P 25> hits </> with PSE on the stationary test with footplates, with between group differences at Day 30 (PSE vs. PLA: 28.96 +/- 2.08 vs. 28.09 +/- 1.92 hits; p = 0.040) and Day 90 (PSE vs. PLA: 28.42 +/- 2.54 vs. 27.02 +/- 3.55 hits; p = 0.002). On the same task, average <P 25> reaction time </> improved (treatment effect, p = 0.036) with PSE at Day 7 (PSE vs. PLA: 0.5896 +/- 0.060 vs. 0.6141 +/- 0.073 s; p = 0.049) and Day 30 (PSE vs. PLA: 0.5811 +/- 0.068 vs. 0.6033 +/- 0.055 s; p = 0.049). PSE also significantly increased <P 25> hits </> (treatment effect, p = 0.020) at Day 30 (PSE vs. PLA: 19.25 +/- 1.84 vs. 18.45 +/- 1.48 hits; p = 0.007) and Day 90 (PSE vs. PLA: 19.39 +/- 1.90 vs. 18.66 +/- 1.64 hits; p = 0.026) for the multi-directional test with footplates. Significant differences were not observed in the remaining Makoto tests. PSE was well <P 32> tolerated </> as evidenced by no effects observed in the <P 0> blood </> safety panels. CONCLUSIONS: The findings of the current study demonstrate that consumption of 900 mg of PSE improved specific measures of <P 25> reactive agility </> in a young, active population. TRIAL REGISTRATION: clinicaltrials.gov, NCT02518165 . Registered August 7, 2015 - retrospectively registered.

30541641\_PD.txt

Title: [Effects of aerosol inhalation on <P 0> respiratory mechanical </> parameters under different ventilation patterns and ventilator parameters].

Publication Type: Randomized Controlled Trial

Journal-Name:Zhonghua wei zhong bing ji jiu yi xue

Journal ID: 101604552

Publication date: 2019/03/09 06:00 [medline]

OBJECTIVE: To investigate the effects of aerosol inhalation on <P 0> respiratory mechanical </> parameters under different ventilation patterns and ventilator parameters in patients on mechanical ventilation and simulated model of aqualung in vitro. METHODS: (1) Clinical research: the patients needed sedative undergoing mechanical ventilation admitted to intensive care unit (ICU) of Qingdao Municipal Hospital from January 2016 to January 2018 were enrolled. They were randomly divided into volume controlled ventilation (VCV) group and pressure controlled ventilation (PCV) group according to random number table. Main parameters setting of respirator: the predetermined tidal volume (VT) was set at 500 mL in the VCV group; the preset pressure was regulated, so that when the atomizer was connected to the atomization device, the VT was nearly equal to or slightly larger than 500 mL in the PCV group. Respiratory mechanical indices [<P 0> peak airway pressure (Ppeak) </>, <P 0> inspiratory tidal volume (VTi) </>, <P 0> exhaled tidal volume (VTe) </>] were recorded before atomization (atomized oxygen flow was 0) and 10 minutes after the beginning of atomization under the condition of 7 L/min and 9 L/min of atomized oxygen flow respectively. (2) Simulated scuba test in vitro: the ventilator was connected to the simulated scuba, and an external mechanical ventilation model was constructed. They were divided into VCV group and PCV group according to ventilation mode. Main parameters setting of respirator: VCV group was given 450, 550, 650 mL preset VT, and PCV group was given 12, 16, 20 cmH2O (1 cmH2O = 0.098 kPa) preset suction pressure. The changes in <P 0> respiratory mechanical </> indexes were observed under different ventilation patterns and ventilator parameters of 0 (only connected with atomizing device), 5, 7, 9 L/min atomizing oxygen flow. RESULTS: (1) Clinical research results: all 77 patients were enrolled in the final analysis, including 20 patients with 7 L/min of atomized oxygen flow under VCV mode, 18 patients with 9 L/min of atomized oxygen flow, and 21 patients with 7 L/min of atomized oxygen flow under PCV mode and 18 patients with 9 L/min of atomized oxygen flow. Under VCV mode, the levels of <P 0> peak airway pressure </> and <P 0> exhaled tidal volume </> were increased with the increase in atomized oxygen flow, and there was significant difference at 9 L/min as compared with those before atomization [<P 0> peak airway pressure </> (cmH2O): 29.44+/-4.58 vs. 24.39+/-4.64, <P 0> exhaled tidal volume </> (mL): 896.26+/-24.91 vs. 497.61+/-8.67, both P < 0.05]. There was no significant change in <P 0> inspiratory tidal volume </>, and no significant difference at 9 L/min of atomized oxygen flow as compared with that before atomization (mL: 494.67+/-3.07 vs. 492.61+/-6.05, P > 0.05). Under PCV mode, with the increase in oxygen atomization flow, <P 0> inspiratory tidal volume </> was decreased gradually, and <P 0> exhaled tidal volume </> was increased gradually, with significant difference as compared with those before atomization when the atomized oxygen flow was 9 L/min [<P 0> inspiratory tidal volume </> (mL): 322.78+/-17.75 vs. 518.17+/-8.97, <P 0> exhaled tidal volume </> (mL): 730.89+/-31.20 vs. 519.00+/-9.06, both P < 0.05]. There was no significant change in <P 0> peak airway pressure </>, and no significant difference at 9 L/min of atomized oxygen flow as compared with that before atomization (cmH2O: 21.44+/-2.23 vs. 21.39+/-2.55, P > 0.05). (2) Simulated scuba results in vitro: under VCV mode, <P 0> exhaled tidal volume </> monitored by respirator and <P 0> tidal volume </> showed by simulated scuba in different preset VT groups were continuously increased with the increase in oxygen atomization flow, while <P 0> inspiratory tidal volume </> monitored by ventilator was not significantly changed. At 10 minutes after the beginning of atomization, the <P 0> inspiratory tidal volume </> monitored by ventilator in different preset VT groups was significantly lower than <P 0> tidal volume </> showed by simulated water lung (mL: 649.67+/-5.03 vs. 840.00+/-10.00 at 650 mL of preset VT and 9 L/min of atomized oxygen flow, P < 0.05), and <P 0> exhaled tidal volume </> was significantly higher than <P 0> tidal volume </> showed by simulated water lung (mL: 1 270.33+/-11.06 vs. 840.00+/-10.00 at 650 mL of preset VT and 9 L/min of atomized oxygen flow, P < 0.05). Under PCV mode, with the increase in atomized oxygen flow, <P 0> inspiratory tidal volume </> monitored by ventilator in different preset suction pressure groups was decreased gradually, and <P 0> exhaled tidal volume </> was increased gradually, but <P 0> peak airway pressure </> monitored by ventilator did not changed significantly. At 10 minutes after the beginning of atomization, the <P 0> inspiratory tidal volume </> monitored by ventilator in different preset suction pressure groups was significantly lower than <P 0> tidal volume </> showed by simulated water lung (mL: 917.33+/-4.51 vs. 1 103.33+/-5.77 at 20 cmH2O of preset suction pressure and 9 L/min of atomized oxygen flow, P < 0.05), and <P 0> exhaled tidal volume </> was significantly higher than <P 0> tidal volume </> showed by simulated water lung (mL: 1 433.33+/-4.73 vs. 1 103.33+/-5.77 at 20 cmH2O of preset suction pressure and 9 L/min of atomized oxygen flow, P < 0.05). CONCLUSIONS: Under the VCV mode, the oxygen flow outside the atomization could lead to the increase in <P 0> tidal volume </> of the patient side, while under the PCV mode, the <P 0> tidal volume </> and <P 0> peak airway pressure </> in the patient side had no significant change. Both <P 0> inspiratory tidal volume </> and <P 0> exhaled tidal volume </> monitored by ventilator could not reflect the patient's <P 0> tidal volume </> under either VCV or PCV mode.