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Objective: This study was designed to investigate the differences between total intravenous anaesthesia (TIVA) of remifentanil and target controlled infusion (TCI) of propofol and balanced anaesthesia with isoflurane/fentanyl in abdominal laparoscopic surgery. Emphasis was placed on haemodynamic reaction, Bis Index monitoring, recovery profile, postoperative side effects, and patient satisfaction.

Methods: Two hundred twenty patients were assigned randomly to receive either total intravenous anaesthesia with TIVA remifentanil/TCI propofol or balanced anaesthesia with isoflurane/fentanyl. After premedication (atropine, pethidine, and midazolam), and induction of anaesthesia (TCI propofol, cisatracurium) in both groups, either 1 microgram/kg fentanyl (Group I) or 1 microgram/kg/min TIVA remifentanil for induction; then 0.05–0.5 microgram/kg/min TIVA remifentanil (Group II) was given. Anaesthesia was maintained with 0.05–0.5 microgram/kg/min TIVA remifentanil (Group II) and 3.5–6.5 microgram/ml TCI propofol or 1.5 vol% isoflurane (Group I). Both groups were ventilated mechanically with 50% oxygen in air. The administration of isoflurane and the infusion of the anaesthetics were adjusted to maintain a surgical depth of anaesthesia with Bis Monitor (42 ± 6.6 in Group I and 44 ± 7.2 in Group II). For postoperative analgesia, 20 mg pethidine was administered intravenously 5–10 min before the end of surgery for propofol/remifentanil group anaesthesia patients. After recovery, 0.25–0.50 mg/kg pethidine was given intravenously to both group patients. At the end of surgery, the anaesthetics were discontinued and haemodynamics, early emergence from anaesthesia, pain level, frequency of analgesic demand, incidence of PONV, shivering, and patient satisfaction were assessed. Parameters were recorded for 24 hours postoperatively.

Results: Recovery time after TIVA remifentanil/TCI propofol anaesthesia for Group II patients was significantly (p < 0.05) shorter than for Group I patients after administration of isoflurane and fentanyl: (1) Spontaneous ventilation, 3.0 vs. 7.0 min; (2) Extubation, 4.5 vs. 9.0 min; (3) Eye opening, 4.0 vs. 8.2 min; (4) Stating name, 5.5 vs. 13.0 min; and (5) stating date of birth, 0.0 vs. 15.0 min). There were no significant differences between the groups in shivering, pain score, analgesic demand, and PONV. The Group I patients responded to tracheal intubation with significantly higher blood pressure than the Group II.

Conclusion: Compared with patients given standard, balanced anaesthesia with isoflurane and fentanyl, total intravenous anaesthesia with TCI propofol and TIVA remifentanil proved to be particularly suited for abdominal laparoscopic surgery. Its major advantages are haemodynamic stability, significantly shorter times of emergence, and the exceptional acceptance by the patients.

Keywords: anaesthesia; fentanyl; haemodynamics; isoflurane; propofol; recovery; remifentanil; surgery, laparoscopic; abdominal; target controlled infusion (TCI); total intravenous anaesthesia (TIVA)
(3.8%) were hospitalized in the field hospital for a duration range of 24 hours to one week. The spectrum of diseases included especially medical illnesses, and only a minority of the patients seen by the IDF field hospital had suffered earthquake-related trauma.

Conclusion: The activities of the field hospital enabled restoration of these abilities in the damaged city.

Ambulance Technicians’ Indications for Prehospital Interventions

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Introduction: Little evidence is available about ambulance technicians’ use of prehospital interventions were relatively wide.

Method: Prospective, observational, registry study including 56 ambulance technicians from two ambulance stations in a Danish county and 5,516 cases in which a patient was brought to a hospital in 1998. The ambulance technicians recorded their use of prehospital interventions and their assessments of the patients’ circulation and breathing.

Results: Ambulance technicians administered oxygen to 2,630 patients, or 47.3% of the patients brought to hospital, of whom 1,872 (71.2%) showed no symptoms of impaired breathing. An ECG was performed on 1,237 patients, or 47.2% of the patients brought to hospital for a duration range of 24 hours to one week. The spectrum of diseases included especially medical illnesses, and only a minority of the patients seen by the IDF field hospital had suffered earthquake-related trauma.

Conclusion: The activities of the field hospital enabled restoration of these abilities in the damaged city.

Management of Mass Casualties from Earthquake in China

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Some parts of China are geologically active, as they belong to the Earthquake Zone of the Pacific Rim. Statistics show that in the last 100 years (1900–2000), there were 25 serious earthquakes, which killed 1,200,000 people. Now we pay special attention to the provision of first aid for the wounded, following the most serious earthquake in the Tong-shan Area of northern China. On 28 July 1976, a formidable earthquake of 7.8 magnitude occurred, killing 242,000 inhabitants, and wounding 164,000. Almost all of the buildings, high and low, in the city were demolished. These buildings included water and electricity supply systems and medical organizations. There were 218 Emergency Medical Support Groups from all over the country with memberships of 19,772 medical practitioners. They received 145,800 wounded persons. Among them, 63,400 were serious, and 29,600 were in critical condition. They required emergency surgery. Ninety-two percent of the wounded were treated with debridement, and others were separated into different categories with different treatment as follows: 3.9% were treated with laparotomy; 0.13% required intestinal repair, 0.26% with splenectomy, 1.5% with reduction of fractures, 0.2% with amputation, 0.13% with laminecctomy, and 1.14% required other operations.