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ANESTHESIA IN OBESITY PATIENT.

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Since 1990 obesity epidemic spread rapidly across the United States. Obesity increased from 12% (1991) till 17,9 %(1998).The highest increase occurred among the youngest ages- 18- 29 years old. Current data present about more than 50% of population is overweight or obese.

Daily calories intake in US increased from 2239(male) and 1534(female) till 2455- 1646 in corresponded groups.22% US adults have regular physical activity(5 times a week for at least 30 min),15% have vigorous activity(3 times a week for at least 20 min) and 25% have no physical activity at all. In US adult group (20 - 74) 54.9% are overweight ,in youth (6-17)-11% are overweight.39,8 million (22.3%0 population of US are obese. Annual death as a reason of overweight is around 300 000 per year.

Overweight has been calculated on BMI 25-28, obese BMI 28-35, morbid obese BMI is more than 35.(National HLBI,2001). Normal BMI is 22- 25.

Major anesthesia pulmonary problems in MO patients are hypercarbia , hypoxemia, pulmonary hypertension and biventricular failure. Decrease of FRC and C_L increase hypoxemia and hypercapnia , PAP is always high.

95 Bariatric surgery cases have been done in University of Washington Seattle at year 2005.

Anesthesia has been provided by awake fiberoptic intubation followed by remifentanyl infusion in dose 0.15 mcgr/kg/min.Muscle paralysis was assured by rocuronium in dose 0.6 mg/kg.

Cardiovascular changes are presented in high cardiac output (CO),stroke volume (SV) and oxygen consumption (V_{O_2}).RV and LV failure has been monitoring on TEE or PA catheter.

Airway in obese patients have high prevalence of obstructive sleep apnea, increased soft tissue and limited head mobility. Mallampati class evaluation as a reliable predictor of difficult intubation .It should be done during preoperative evaluation .In any suspicion of difficult airway in obese patients awake fiberoptic intubation is choice for airway protection.

Premedication in obese patients is dangerous because of different pharmacodynamic and pharmacokinetics (liver cirrhosis or inflammation). No sedation or very light sedation with O_2 mask was appropriate way for obese patients in UW. Always options for postoperative intubation and ventilation support should be discussed. Regional anesthesia should be taken into consideration.

Intraoperative management is based on 5 lead EKG, arterial line, SpO₂, preoxygenation and ETCO₂ monitoring, 30° elevated head-up position. In cases of BMI >40 TEE and pulmonary artery pressure evaluation were used to exclude heart failure.

Summary: Anesthesia in obese patients is a challenging professional task. It is based on anesthesiologist's profound clinical knowledge and need of modern intraoperative monitoring and technology.