

EP.0197 - Ergonomics in laparoscopy; An Analytical Questionnaire Survey

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Aims and Objectives – To assess the acute and chronic Musculo skeletal pain, eye strain, mental stress, fatigue, trips / falls in dark room, among laparoscopic surgeons performing major/ intermediate gynaecological procedures on regular basis.

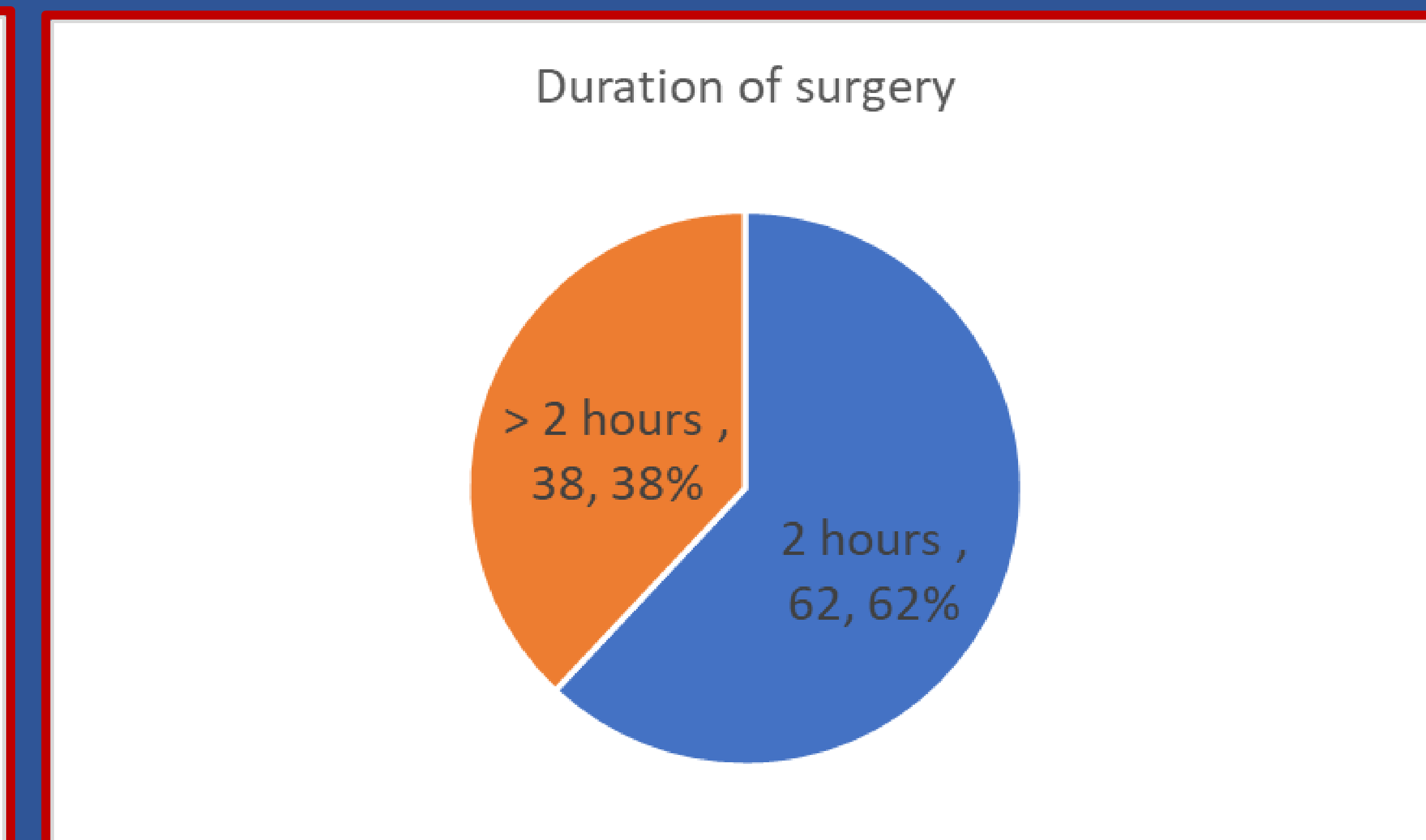
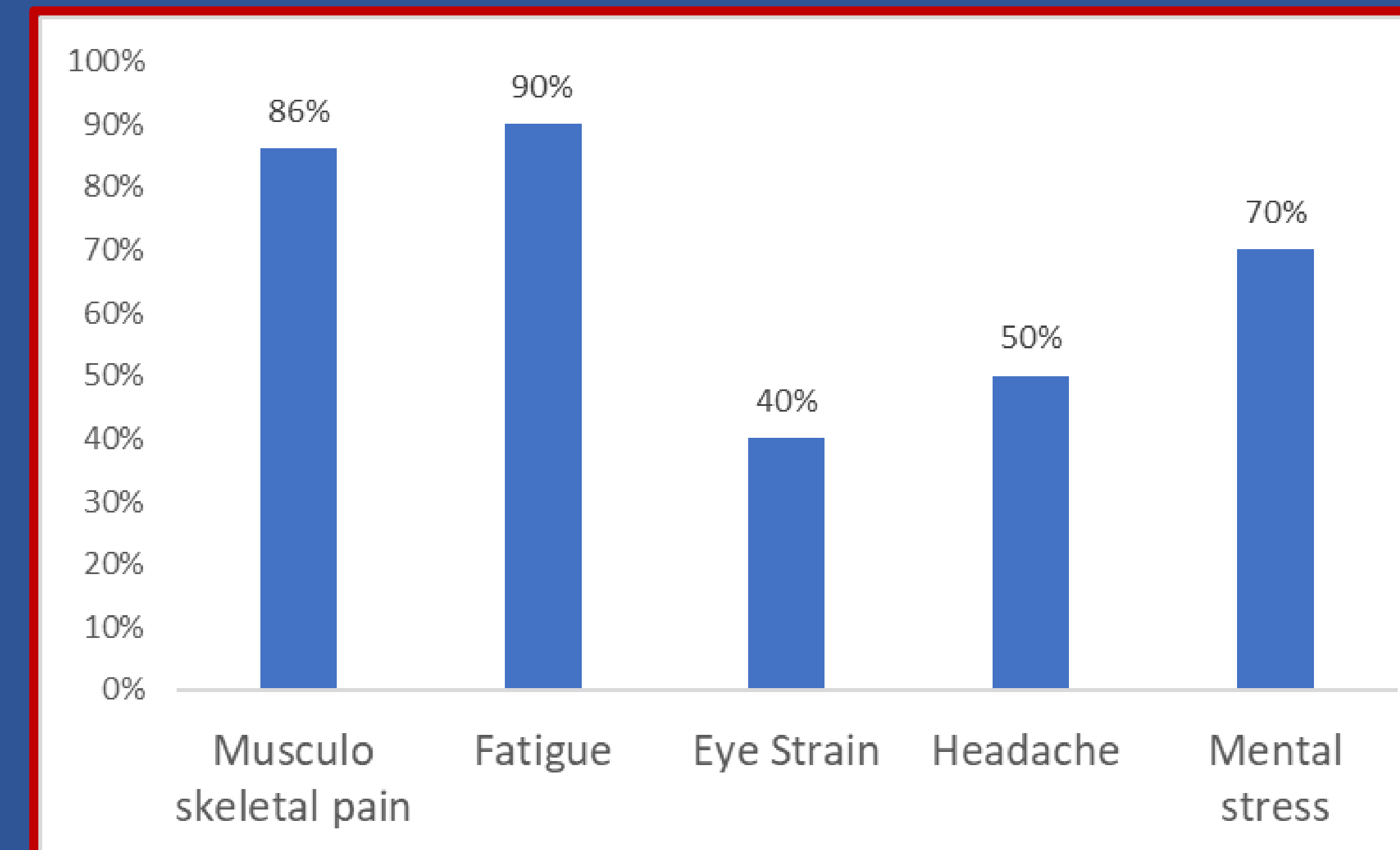
Study design & Methodology- Electronic questionnaire survey of national and international gynaecological endoscopists, undertaking complex major and intermediate laparoscopic surgery from high-volume laparoscopy centres. 132 total responses received from United Kingdom, America, India and Greece. Procedures included laparoscopic hysterectomy, treatment of severe endometriosis, laparoscopic adhesiolysis, cystectomy and selective gynaecological oncology procedures.

Results - Surgical duration was two hours in 62 % and over two hours in 38%.

Surgeons did two to three typical operating lists per week in 70% of survey and 30 % did daily laparoscopy at laparoscopy centre.

The Neck, shoulder and back pain reported in 86%, Fatigue in 90%, Eye strain in 40%, head ache in 50%, Fingers /thumbs ache from graspers & diathermy in 60% , Fall and fracture in 4% (due to trips in dark room). Mental stress noted in 70%.

Contributing factors were, new assisting team in 40%, inappropriate Equipment choice or set up that needed improvement in 80% . Other contributing factors were poor concentration from assisting team in 30%, delays and distractions in 50%.



What made surgeons feel better were Ergonomic laparoscopy equipment, dedicated laparoscopy set up and consistent presence of trained team in 90% .

The impacts on surgeons were short and long term sickness, cancellation of personal social events in 20% , Sickness absence in 20%.

Conclusions - Ergonomics friendly laparoscopy equipment and set up, with trained team reduces the post-surgical physical and mental strain on operating team. Ergonomic adaptation of laparoscopic operating theatre improves efficiency, safety, and comfort for the operating team. Understanding the ergonomics involved in laparoscopy, reduces fatigue and physical strains on surgeons.