p < 0.001) have independent influence on monthly ESWL number, while the rest climate factors are insignificant.

**Conclusion:** Temperature and atmospheric pressure are associated with monthly ESWL rate. Ambient temperature is the most important climate factor affecting urolithiasis prevalence in northern Taiwan.

**NDP043:**
**OUR EXPERIENCE OF TISSUE GLUE INJECTION IN TUBELESS PERCUTANEOUS NEPHROLITHOTOMY**

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**Purpose:** To share our experience with the use of Tissucol Duo or Floseal during tubeless percutaneous nephrolithotomy, we evaluated its clinical benefit with respect to length of hospital stay, analgesic usage and hemoglobin level change.

**Materials and Methods:** We retrospectively reviewed of 500 patients who underwent percutaneous nephrolithotomy in our hospital. In 100 consecutive patients, percutaneous tracts were injected with 5 ml of Tissucol Duo Quick after removal of Ampulla sheath. We compared the days of hospitalization, age, stone burden, operation time, and complications between 100 patients who received tubeless percutaneous nephrolithotomy with fibrin glue use (experimental group) and 400 patients who received percutaneous nephrolithotomy without use of tissue glue (control group).

**Results:** The average days of hospital stay was 0.92 day (P = 0.02) shorter in the experimental group than in the control group. Age distribution between two groups was not statistically different. The decreased level of Hematocrit was 20% lesser in the experimental than in the control groups. The total usage of analgesic agent was less in the experimental group, but the difference was not statistically significant between two groups. No statistical difference was noted between the operative times, stone burden, and complication for both groups. Postoperative blood transfusion, fever and wound infection were found in 10 patients in the experimental group and 50 patients in the control group. Three patients expired due to hemorraghic shock and sepsis.

**Conclusion:** The use of fibrin glue is safe and clinical benefit in the length of hospitalization, hemoglobin level maintenance in percutaneous nephrolithotomy procedures. Additional prospective randomized studies are needed for more clinical benefit evaluation.

**NDP044:**
**CHANGE OF TREATMENT IN UPPER URINARY TRACT STONES IN OUR HOSPITAL**

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**Purpose:** To evaluate the change of treatment strategy regarding upper urinary tract stones in our hospital in last 5 years

**Materials and Methods:** We collected data from our hospital database on patients receiving extracorporeal shock wave lithotripsy, endoscopic surgery and open surgery. We analyzed how the incidence of these treatments changed over last 5 years

**Results:** From January 2009 till December 2013, 10865 patients with upper urinary tract stones received invasive treatment. The amount of patients receiving ESWL decreased annually while the numbers of endoscopic surgery increased gradually. We can see in recent years there has been a clear increase in the endoscopic surgery with decreasing number in ESWL.

**Conclusion:** In recent years, there has been a clear reduction in the number of ESWL & increase in the number of endoscopic surgery in our hospital. The reason of such trends may be due to the change of healthcare policy & advanced instruments. The retreatment of endoscopic surgery was lower than ESWL group which could decrease the overall treatment cost.

**Laparoscopy**

**NDP045:**
**PRELIMINARY RESULTS OF A NOVEL EXTRAPERITONEAL LESS NEPHROURETERECTOMY FOR UROTHELIAL CARCINOMA OF UPPER URINARY TRACT**

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**Purpose:** Urothelial carcinoma of upper urinary tract (UTUC) is a rare disease. Nephroureterectomy and excision of bladder cuff is the standard of surgical treatment. The approaches for this surgery have evolved enormously in the past few decades. Laparoendoscopic single site (LESS) surgery is one of the surgical options with the advantages of fast recovery and good cosmesis. We reported our preliminary results of a completely retroperitoneal LESS approach via a Gibson’s incision, which is a novel way of access in performing this operation.

**Materials and Methods:** From September 2013 to September 2014, 10 patients accepted LESS retroperitoneal nephroureterectomy with excision of bladder cuff through a 5 Gibson’s incision by a single surgeon. GEL-POINT (Applied medical) was adopted as the access platform. The mean age of the patients was 76.3 years (range 56-87). There were 4 male and 6 female.

**Results:** All the procedures were smoothly carried out without sequela. The mean total operation duration was 330 minutes (range 230-430). The mean duration for nephrectomy was 163.8 (range 120-230). The mean blood loss of nephrectomy was 145 ml (range 50-300). There was no conversion to open or conventional laparoscopic approach. Transperitoneal LESS approach was performed in one patient due to obvious violation of the peritoneum. There were no post-operative events. The cosmesis was satisfactory.

**Conclusion:** The preliminary results of our novel LESS retroperitoneal approach for nephroureterectomy with excision of bladder cuff were promising. Such approach may be one of the choices for the surgical treatment of UTUC.

**NDP046:**
**COMPARISON OF LAPAROENDOSCOPIC SINGLE-SITE (LESS) AND CONVENTIONAL EXTRA-PERITONEAL (TEP) INGUINAL HERNIA REPAIR**

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**Purpose:** The success of laparoscopic surgery is due to the less surgical trauma, including less operative pain, complications and better cosmetics (less wound). However, conventional laparoscopic hernia repair usually requires three working port and each increasing port is associated with possible increasing morbidity and pain related to ports. This has led to the development of laparoendoscopic single-site hernia repair which can further reduce the port-related morbidities and improve cosmetic outcomes.

**Materials and Methods:** We performed a retrospective analysis of 78 patients (LESS-TEP, 36; conventional laparoscopic-TEP, 42) scheduled to undergo elective inguinal hernia from January 2013 to December 2014 by single surgeon at Chi Mei Medical Center. Data regarding patient demographics, type of hernia, operative time, complications, postoperative hospital stay, and recurrence were analyzed and compared.

**Results:** There were no significant differences in the patient demographics. All 36 patients in LESS-TEP group were bilateral hernia, 40 patients in conventional laparoscopic-TEP group were bil hernia and 2 were unilateral hernia. There were no significant differences in the length of operation time (LESS-TEP, 93.88 min vs. conventional laparoscopic-TEP, 82.02 min). Mean hospital stay were 2.77 days in LESS-TEP group and 3.16