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Background: Bone metastasis is one of the most common complications in clinical intractable castration-resistant prostate cancer (CRPC) and advanced prostate cancer period. The invasion ability of cancer cells was thought to have important relationship with the potential of cancer metastasis. EP4 receptor is overexpressed in several cancers, and enhanced EP4 receptor signaling has been previously shown to correlate with the invasion of several different cancer types. In present study, we found that EP4 antagonist can *in vitro* suppress the invasion phenotype abilities of CRPC PC3 cells, LNCaP cells with EP4 overexpressed which have the tendency to castration-resistance and *in vivo* suppress the CRPC bone metastasis animal models.
Methods: RNA interference was used to stably transfected EP4 to LNCaP with the pcDNA3.1-EP4, so as to be the LNCaP with vector control (LNCaP-mock) and LNCaP with EP4 overexpressed (LNCaP/EP4+) as described in our previous article. Effect on cell proliferation was determined firstly by the MTT assay. Transwell invasion assay was used to *in vitro* examine the metastasis abilities of PC3 cells, LNCaP cells, LNCaP/EP4+ and all after EP4 antagonist affected. Cells with ONO-AE3-208 at the final concentration of 0.1, 1 and 10 μmol/L were administrated to be the experimental group. To observe the effect of EP4 antagonist on the bone metastasis of prostate cancer *in vivo*, PC3/Luc cells were inoculated into the left cardiac ventricle of 5-week-old male nude mice. The mice developed osteolytic lesions with a mean endpoint at 52±7 days. To assess whether EP4 antagonist suppresses bone metastasis, ONO-AE3-208 (10 mg/kg/d) was given to the animals 5 days a week i.p. which the same volume of DDW was given as the control. To detect PC3 cell dissemination, bioluminescent imaging (BLI) was applied using a cooled CCD camera. We evaluated the efficacy of ONO-AE3-208 by measuring the photon counts of the metastatic lesions in the mandible and both hip joints in a blinded manner.
Results: The invasion assay showed that ONO-AE3-208 can inhibit the invasive abilities of both PC3 and LNCaP/EP4+ in a dose-dependent manner (P<0.01). In animal experiment, metastatic bone lesions in the control group progressed while the photon emission was significantly suppressed in the ONO-AE3-208 treatment group during the observation period from day 28 every 7 days (P<0.01).
Conclusions: We demonstrated that EP4 antagonist can *in vitro* inhibit the invasive abilities of CRPC PC3 and LNCaP/EP4+ cells. The administration of it can also suppress the bone metastasis of CRPC *in vivo*.
Keywords: EP4; prostate cancer; bone metastasis

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AB066. MiR-129 predicts prognosis and inhibits cell growth in human prostate carcinoma

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Background: MicroRNAs, as a class of small, well-conserved, non-coding RNAs, are increasing identified as diagnostic biomarkers in many cancers. The dysregulated microRNA-129 (miR-129) is closely related with tumorigenesis and cancer progression. However, their potential role of miR-129 in prostate cancer still remains largely elusive.
Aim: In this study, we aimed to investigate the evidence of miR-129 as prognostic biomarkers for tumor progression and clinical prognosis in prostate cancer patients.
Results: The prostate cancer tissues exhibited a significant reduction in miR-129 expression compared with the paracancerous tissues (P<0.05). The miR-129 expression is negatively correlated with histological grade (P=0.000), high preoperative PSA level (P=0.000), pathological stage (P=0.000), high Gleason score (P=0.000), lymph node metastasis (P=0.002), angiolymphatic invasion (P=0.018), biochemical recurrence (P=0.001). Kaplan-Meier analysis demonstrated that low miR-129 expression level was closely associated with poorer biochemical recurrence (BCR)-free survival. Further analysis indicated that (P=0.000) expression

may be and independent prognostic factor for BCR-free survival prostate cancer patients (P=0.000). Overexpression of miR-129 markedly attenuated the prostate cancer cell growth via rescuing the dysregulated cell cycle regulatory protein expression.

Conclusions: Taken together, miR-129 was down-regulated in prostate cancer tissues in prostate cancer patients. It may be considered as a novel independent prognostic biomarker for prostate cancer. Downregulation of Mir-129 plays a critical role in proliferation of prostate cancer.

Keywords: MicroRNA-129 (miR-129); prostate carcinoma; prognosis

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AB067. Transurethral endoscopic treatment of benign prostatic hyperplasia

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Background: To explore Transurethral endoscopic treatment of benign prostatic hyperplasia (BPH) year clinical effect of bladder stones

Methods: From 2011 to 2015, we had treated 28 cases of patients with BPH complicated with bladder calculi by removing the electric cutting circular of electricity cut mirror, then put holmium laser fiber into the hole of electric cutting circular.

Results: The group of 28 patients was successful surgery, mean operative time was 75 minutes and no intraoperative bladder perforation, prostate capsule cut broken, transurethral resection syndrome and other complications. After removal of the catheter after surgery was smooth urination, postoperative hospital stay was significantly shorter. Review of urinary tract ultrasonography before discharge showed no residual stones, residual urine volume is very small, overflow incontinence, renal insufficiency, and other symptoms gradually returned to normal. Twenty-four cases were followed up for 6 to 36 months, were smooth urination, no stone recurrence.

Conclusions: Transurethral endoscopic holmium laser lithotripsy treatment of BPH and bladder stones is a simple, safe and effective surgical method.

Keywords: Transurethral; prostatic hyperplasia; bladder stones

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AB068. Transperitoneal laparoscopic dismembered pyeloplasty for ureteropelvic junction obstruction in children

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Background: To explore the clinical value of transperitoneal laparoscopic dismembered pyeloplasty for ureteropelvic junction obstruction (UPJO) in children.

Methods: The clinical data of 28 cases with UPJO were respectively reviewed. Among the cases, 19 cases were male and 9 cases were female. Their ages ranged from 8 to 14 years old. The diagnosis was set up by color ultrasonography and CTU and MRU. All the cases had hydronephrosis, with 10cases moderate, 18 cases severe. Twenty-eight patients with UPJO underwent transperitoneal laparoscopic dismembered pyeloplasty.

