

REPRODUCIBILITY OF CORPUS CAVERNOSUM ELECTROMYOGRAPHY IN HEALTHY YOUNG MEN

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INTRODUCTION & OBJECTIVES: Research on reproducibility of corpus cavernosum electromyography (CC-EMG) is relevant because reproducible signals indicate a biological phenomenon and not an artefact. Reproducible signals are also required to use CC-EMG as a diagnostic tool for erectile dysfunction. The aim of this study was to assess the reproducibility of CC-EMG in healthy young men under well-controlled conditions.

MATERIAL & METHODS: Ten healthy young men with a mean age of 21.6 were studied. The subjects were asked not to drink alcohol and coffee, not to smoke, and not to have sexual activity 12 hours prior to the measurements. Measurements were performed between 8 and 12 am, in a closed, quiet room with the examiner present. Surface electrodes were placed bilaterally on the penile shaft. One reference electrode was placed on a kneecap. The recording lasted for 30 minutes during flaccidity. Two independent measurements were done during the first visit with an interval of 1 hour. The third CC-EMG measurement was done after one day or later, under the same conditions as during recording session 1. Firstly the recordings were evaluated globally. Attention was paid to the quality of the recording, the baseline characteristics, and the waveform of CC-potentials. Ten most representative CC-potentials of each recording session were selected for further analysis. Amplitude (A) and harmonic frequency (F) of the CC-potentials from the base of the penis were calculated. The intra-individual reproducibility of these parameters was determined using Pearson correlation analysis.

RESULTS: The global pattern of the recordings and the waveform of CC-potentials was reproducible intra-individually. Comparing recording sessions 1 and 2, and 1 and 3, both parameters A and F showed significant correlations (see table 1).

Table 1: Parameters of CC-potentials and correlations of 3 recordings in 10 healthy volunteers (data are presented as the mean (SD))

	Rec. 1	Rec. 2	Rec. 3	R (1 vs. 2)	p (1 vs. 2)	R (1 vs. 3)	p (1 vs. 3)
A (µV)	403.78 (109.33)	397.11 (60.05)	425.63 (92.94)	0.741	0.014*	0.892	0.017*
F (Hz)	0.27 (0.06)	0.26 (0.04)	0.28 (0.06)	0.899	0.000*	0.951	0.000*

*Significant correlation at $p < 0.05$

CONCLUSIONS: CC-EMG recordings in healthy men are reproducible. The results indicate that CC-potentials indeed reflect a biological phenomenon and, therefore, CC-EMG may be used to evaluate the functional state of the CC.

P41 UROTHELIAL TUMOURS: MANAGEMENT OF INFILTRATIVE/ ADVANCED TUMOURS II
Friday, 18 March, 15:45-17:15, Room 4.4/Hall 4

703

OUTCOME OF THE TREATMENT OF INVASIVE NON-TRANSITIONAL CELL CARCINOMA

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INTRODUCTION & OBJECTIVES: We evaluated the treatment outcomes of non-transitional cell carcinoma (non-TCC) cases after radical cystectomy.

MATERIAL & METHODS: Radical cystectomy was performed in 336 invasive bladder cancer patients in our department and of these, 69 (20.5%) were non-TCC. Primary squamous cell carcinomas (SCC), adenocarcinomas and undifferentiated cancers (UC) were grouped as non-TCC of the bladder. Of the 69 non-TCC; 42 (60.9%) SCC, 20 (28.9%) UC, 5 (7.3 %) adenocarcinoma and 2 (2.9%) sarcomatoid tumour cases were demonstrated.

RESULTS: The 5-year disease-specific survival rate of TCC and non-TCC cases were 49.1% and 26.2%, respectively ($p = 0.0016$). The 5-year disease-specific survival rates of SCC and UC were 27.6% and 21.1%, respectively. The median survival time of SCC, UC and adenocarcinoma cases were 19 ± 3.32 , 12 ± 1.69 and 14.40 ± 3.64 months, respectively ($p = 0.468$). The disease-specific survival rates of TCC and non-TCC cases at stage pT2NoMo were 79.1% and 27.2%, respectively ($p = 0.001$). The median survival time of SCC, UC and adenocarcinoma cases were 19, 12 and 13.5 months, respectively, for the same stage. The survival time of TCC, SCC and UC cases at stage pT3NoMo were 22, 24 and 46 months, respectively ($p = 0.232$). The median survival time at stages pT2-3N1Mo for the same groups were 18, 16 and 11 months, respectively ($p = 0.094$).

CONCLUSIONS: The study presented here demonstrates that both TCC and non-TCC cases have poor survival rates in locally advanced disease and that at the pT2NoMo stage the prognosis of non-TCC cases is poor when compared with TCC cases.

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FACTORS THAT EFFECT FEMALE SEXUAL DYSFUNCTION FREQUENCY

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INTRODUCTION & OBJECTIVES: Sexual dysfunction is not a rare problem in female population. In this study, we aimed to detect the frequency of female sexual dysfunction and to investigate possible risk factors that may cause sexual dysfunction.

MATERIAL & METHODS: The study included 152 women between the ages of 20 and 69 years from different socio-cultural areas. Female sexual function was evaluated with a detailed 19 items questionnaire to assess desire, lubrication, orgasm, satisfaction and pain. The influence on sexual function of risk factors like age, multiparity, smoking, previous pelvic surgery, contraception method, hypercholesterolemia, educational state, menopause and diabetes mellitus were investigated. The women were divided into 5 groups according to their ages: 20-29 years (n: 23), 30-39 years (n:43), 40-49 years (n:41), 50-59 years (n:27), 60-69 years (n:18). The frequency of sexual dysfunction was calculated for each domain and compared among the groups.

RESULTS: Based on total sexual function score 72 (47.36 %) out of 152 women had sexual dysfunction. The percent of sexual dysfunction in the ages of 20-29, 30-39, 40-49, 50-59 and 60-69 were 27.3%, 25.5 %, 56 %, 62.9% and 88.8%, respectively. The frequency of sexual dysfunction was increased significantly with age ($p = 0.0001$). Sexual dysfunction was also observed significantly higher in the presence of lower educational state ($p = 0.041$), menopause ($p = 0.0003$) and diabetes ($p = 0.0001$). The other risk factors (multiparity, smoking, previous pelvic surgery, contraception methods and hypercholesterolemia) had not influenced sexual function significantly ($p = 0.94$, $p = 0.17$, $p = 0.33$, $p = 0.078$, $p = 0.7$, respectively).

CONCLUSIONS: The frequency of female sexual dysfunction increases with age. In addition, the presence of a lower educational state, menopause and diabetes are important risk factors for sexual dysfunction.

704

PELVIC RECURRENCE FOLLOWING RADICAL CYSTECTOMY FOR INVASIVE BLADDER TCC: ARE RECURRENCE RATES HIGHER IN ORTHOTOPIC BLADDER REPLACEMENT COMPARED TO ABDOMINAL WALL DIVERSION?

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INTRODUCTION & OBJECTIVES: Radical cystectomy is the gold standard surgical approach for muscle-invasive bladder TCC. Either orthotopic bladder replacement or urinary diversion to the abdominal wall (primarily ileal conduit or coetaneous continent diversion) are optional combinations with radical cystectomy. It was hypothesized that in patients with orthotopic bladder replacement pelvic recurrence rates are higher than in cases of abdominal wall diversion, possibly related to surgical technique. The purpose of our study was to explore this issue.

MATERIAL & METHODS: We examined the files of all patients who underwent radical cystectomy in our institute between the years 1984-2004. Patients' age, sex, histo-pathological stage and diversion technique were all recorded and analyzed.

RESULTS: Between the years 1984-2004, 345 pts (290 men, 55 women) underwent radical cystectomy due to invasive bladder TCC. Among them, 237 underwent abdominal wall diversion, while 106 underwent orthotopic bladder replacement. Another 2 pts underwent urinary diversion according to Mainz II technique. Patients' ages ranged between 36 to 88 yrs (median: 66 yrs). Pelvic recurrence occurred in 14/106 pts who underwent bladder replacement (13%) and in 26/237 pts who underwent abdominal wall diversion (11%), though without a statistically significant difference ($p > 0.7$). Average time to recurrence also did not differ ($p = 0.95$).

Neither patients' sex nor age had any influence on the results. As expected, advanced pathological stage was found to influence on pelvic recurrence in the combined cystectomy group ($p < 0.005$). Overall, Kaplan-Meier survival analysis curve was essentially identical for both groups.

CONCLUSIONS: Urinary diversion technique has no significant impact on pelvic recurrence rates and time to recurrence, however, advanced pathological stage significantly increases pelvic tumour relapse.