Conclusions: The greatest advantage of CT gantry tilt scan is that through the advanced image quality, we could reduce the metal artifact and clearly distinguish tumour from the normal tissue.
Also, through obtaining the accurate CT number, the error in calculation could be minimized.
Therefore, through this experiment, we could confirm that accurate treatment plan is possible for the head and neck patients with dental structures by using CT gantry tilt scan.

8578 POSTER

The Response Evaluation Using CT/MRI for Nasal Cavity and Paranasal Sinuses Malignancies Treated With Radiotherapy or Proton Beam Therapy

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Purpose: Recently, definitive radiotherapy (RT) and proton beam therapy (PBT) are often performed for the malignancies of nasal cavity or paranasal sinuses. In other cancers which can be treated with curative intent, salvage treatment including surgery is often taken into account if we designate these as non-complete response (non-CR) after RT or PBT. However, there are some long survivors with morphologically residual tumours in malignancies of nasal cavity and paranasal sinuses, and optimal timing for evaluation has not been sufficiently investigated.
Then, we review our clinical database and investigate the relevance of the response evaluation by CT/MRI for malignancies of nasal cavity and paranasal sinuses.
Materials and Methods: Patients fulfilling the following criteria were reviewed: 1) with nasal or paranasal malignancies treated by radiotherapy or proton beam therapy between January 1998 and December 2008, 2) received CT and/or MRI at least twice after the treatment (within 6 months and around 12 months). We employed the Response Evaluation Criteria in Solid Tumours (RECIST) ver. 1.1 as reference for evaluation of target lesions. Patients who had achieved CR at 6 months after treatment were defined as CR patients, while remaining patients as non CR patients. Overall survival and Disease free survival were analyzed using the Kaplan–Meier product limits and compared with the log-rank test.
Results: Sixty five patients were reviewed. Median age was 59 (range; 21−83) years, and 39 were male and 26 were female. Tumour pathological type varied, and of all, olfactory neuroblastoma (ONB; n = 20, 30%) and squamous cell carcinoma (SCC; n = 15, 23%) were the major types. Most of the patients had T4 or Kadish C disease (n = 51, 78%). The rates of complete response at 6 months after treatment were 15% and the total 2-year local control rate was 75.4%. With a median follow up 49.6 months, 3-year overall survival was 73.4%. In CR patients, the 2-year local control and 3-year overall survival rates were 88.9% and 77.8% respectively, while 73.2% and 72.6% in nonCR patients. There is no significant difference between two groups in overall survival (p = 0.65).
Conclusions: No correlation between within 6 months imaging evaluation and outcome was seen for patients with non-surgical therapy for malignancies of nasal cavity or paranasal sinuses. Further investigations regarding response evaluation using PET-CT or other modalities are mandatory.

8579 POSTER

Low Dose Weekly Paclitaxel Versus Cisplatin Concurrent With Radiation in Advanced Head and Neck Cancer

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Purpose: To compare the tolerability and efficacy of low dose weekly Paclitaxel versus cisplatin concurrent with radiation in locally advanced head and neck cancer.
Material and Methods: One hundred patients of locally advanced head and neck cancer were enrolled in the study from November 2009 to June 2010. All patients were randomised into two groups, study group A and control group B. Study group patients received injection Paclitaxel 30 mg/m^2 iv 1 hour infusion weekly for 6 weeks whereas control group patients received injection cisplatin 30 mg/m^2 iv 2 hour infusion weekly for 6 weeks. All patients were treated with concurrent radiation to a dose of 64- 70 Gy, 2 Gy/fraction, 5 fractions a week by cobalt teletherapy machine. Total treatment time was 6−7 weeks.
Results: Follow up data for 6 months was analysed and observed complete response rates of study and control group was 86% and 44% respectively. There was a highly significant difference in treatment response between the study and control groups [χ^2 = 19.76, df = 2, p value <0.001]. Local toxicities including mucositis, dysphagia and skin reactions were comparable between the two groups. At 6 months of follow up, 98% of patients in the study group and 44% in the control group were alive and disease free.
Conclusion: Low dose weekly infusion of Paclitaxel concurrent with radiation in locally advanced head and neck cancer is a promising and well tolerated regimen. Further studies of long term follow up are required to evaluate if this benefit will translate into prolonged survival.

8580 POSTER

The Routine Use of Harmonic Scalpel in Total Thyroidectomy is Associated With a Low Re-Bleed and Low Hypocalcaemic Rate

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Aim: Despite the published evidence of shorter operating time, less bleeding and good cosmesis, the use of harmonic scalpel remains controversial in thyroid surgery. Hypocalcaemia (transient or permanent) following total thyroidectomy has been reported to be as high as 24%. In our practise, the harmonic scalpel is used to seal both the STA and the branches of the ITA without additional ligation. The purpose of this study was to evaluate the feasibility, safety and outcome of this surgical tool in total thyroidectomy.
Methods: Data of all patients who underwent primary total or completion thyroidectomy between January 2009 and May 2010 were reviewed. Age, sex including co-morbidities, previous operations and laboratory investigations were recorded in a proforma and analysed.
Results: Study comprised of 89 consecutive patients without exclusions. 73 (82%) total and 16 (18%) completion thyroidectomies were performed using the harmonic scalpel. There were 80 (90%) female and 09 (10%) male with a median (*) age of 46* (range 28−81). Operative time was 105* (50–220) minutes. *Final histology showed 44(49%) had multinodular goitre, 25 (28%) thyroid cancer, 16 (18%) autoimmune disorders (grave's, hashimoto's)* and 4 (5%) had other benign conditions. None of the patients developed a post-operative neck haematoma requiring return to theatre and nor developed wound infections. Post operative hypocalcaemia was found in 3(3.5%) patients which was corrected with IV & oral replacement or oral replacement only. Inpatient stay was 2* (range 1−6) days and 49 (55%) only had an overnight stay. Follow up was 12* (range 6- 22) months. The transient hypocalcaemia in the three patients resolved within 8 weeks.
Conclusion: This study presents evidence that there is a very low incidence of return to theatre for bleeding with the routine use of the harmonic scalpel. It is also associated with a low level of both post-operative and permanent hypocalcaemia.

8581 POSTER

Diagnostic and Treatment With Endoscopy in Secondary Oncopathology of Orbit

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Material and Methods: Within a combined or complex treatment 100 patients with diagnosed neoplasm of orbit underwent endovideo assisted intervention in the volume of orbital exenteration in 14 cases, orbital facial resection − in 40 cases, cranial orbital facial resection − in 46 cases.
Results and Discussion: A clinical characteristic of cranial orbital facial tumours depending on their topographic localization is determined in 4 groups. In all groups of localization an ophthalmic symptomatology is significantly pronounced, an otorhinolaryngologic and a neurologic symptomatology is more pronounced in larger lesions. The analysis of exophthalmos symptom showed its more typical values up to 5 mm in patients with tumours of cranial orbital facial localization. The analysis of diplopia symptom demonstrated a presence of various types of diplopia in patients with tumours of cranial orbital facial localization with a predominance of the 2nd type of peripheral diplopia (47%).
An access through the maxillary sinus with gel injection is informative with limitation in superior segments, it is possible in out-patient conditions, there is a possibility to use additional instruments. An access through the median nasal passage and the ethmoidal labyrinth is dangerous because of a profuse hemorrhage possibility in postoperative period and available endoscopes cannot provide a free manipulation in the nasal cavity.
Conclusions: In all groups of localization an ophthalmic symptomatology is significantly pronounced, an otorhinolaryngologic and a neurologic symptomatology is more pronounced in larger lesions. Endoscopic

methods in orbital oncologic pathology can significantly increase the informative ability of diagnostic stage and allow to perform necessary manipulations. The endoscopic access to the orbit is possible and most safe through the maxillary sinus.

8582 POSTER

Experience of Using Radiofrequency Ablation to Empower Endolaryngeal Resection

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Introduction: Laryngeal cancer ranks first among malignant tumours of the head and neck, accounting for 2.6% in the total incidence of malignant tumours of man. About 1/3 patients (32.4%) had stage I and II disease, 49.6% − III stage, 15.5% − IV stage (on the data of the Russian Federation). Currently, the potential of modern video endoscope technology allow organ intact treatment in the early stages of the disease. However, it is worth noting that there is a need to improve the efficacy of such operations for tumours with an index of T2 and above. Method of radiofrequency ablation can potentially empower endolaryngeal resection.
Objective: To improve results of organ intact treatment of larynx at I−II stage of laryngeal cancer.
Materials and Methods: During the period since 2008 we have completed over 20 transactions in the amount of video endoscope endolaryngeal resection. Treatment was conducted in patients with I (25%) and II (45%) stage laryngeal cancer, as well as laryngeal papillomatosis (20%) and sarcoma (10%). In 7 (35%) cases resection was supplemented by the use of radiofrequency ablation at the bottom of the removed tumour. Observation periods ranged from 1 to 48 months.
Results and Discussion: During the follow-up, 2 (10%) patients had recurrent disease, requiring laryngectomy, and in the group with radiofrequency ablation recurrences were not identified.
Conclusion: The technique of radiofrequency ablation can complement existing surgical technique and may improve outcomes in patients, especially in locally advanced processes.

8583 POSTER

Technology Voice Prosthesis After Laryngectomy for Cancer

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Introduction: In the Organizational Structure of malignant tumours of laryngeal cancer is 2.8%. The high level of mortality in this disease is caused by the refusal of laryngectomy patients, t.k.eta operation causes patients with severe trauma and renders it incapable of communicating with others. In recent years, widely spread method of rehabilitation of vocal function after laryngectomy with tracheoesophageal bypass with prosthesis voice prostheses (TPSHP).
The currently used methods TPSHP quite complex. Our aim was to create a method of rehabilitation of vocal function reliably without requiring complex tools, easily repeatable and have a good, stable results.
Materials and Methods: We applied the method TPSHP in 207 patients. Description of the method: the necessary tools: a) a metallic conductor with a diameter of 2 mm, length 20−22 mm end is bent at an angle of 120 0 having at one end globular thickening, but on the other hand, which allows him to hold in position. b) rubber tube is 5 mm in diameter which is placed a conductor, to avoid injury of the esophagus, and c) a voice prosthesis, d) a scalpel.
Conductor is placed in a rubber tube and injected into the mouth, pushing down his throat and esophagus to the level of tracheostoma. Shift the rubber tube top, bare end of the conductor. Curved part of the conductor directed anteriorly and to pull it back wall of the trachea and the anterior wall of the esophagus. Scalpel incision 5 mm perform these walls. In the formed responsible outputting the lumen tracheal end of the conductor. To him over nodular thickening of the silk tie. One end is left in the tracheostomy, and the second (the conductor) pull out. Then cut the conductor and in its place tie voice prosthesis. Stretching out beyond the end of the thread in the tracheostomy, the prosthesis being dragged into the esophagus and establish a tracheoesophageal shunt.
Results and Discussion: As a result, the application of this method simplifies the procedure of introducing the prosthesis, reduced trauma, there is no need to use a protector rear wall of the esophagus does not require special drills, easily trained to this method.
Conclusion: Using this technique succeeded in restoring a good voice after removal of the larynx in 96% of patients.

8584 POSTER

Intraoperative Photodynamical Navigation in Thyroid Cancer Diagnostics

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Introduction: In the Organizational Structure of malignant tumours of thyroid gland is 0.5−1% for male, female − 1−4.6%. The basic method of treatment of thyroid cancer is surgery. The special place among complications of surgical treatment of a cancer of a thyroid gland on gravity of implication and complexity of preventive maintenance occupies a postoperative hypoparathyrosis which develops at excision or damage of parathyroid glands during a surgical intervention on a thyroid gland. Depression of level of a parathormone in blood serum thus leads to disturbance calcium-phosphoric of an exchange, carrying out of nervous impulse, reduction of muscles and a fibrillation, durability and structure of sceletal system. Therefore damage of parathyroid glands during operation on a thyroid gland can lead to serious implications of a hypoparathyrosis.
Methods applied now in intraoperative visualization and conservations of parathyroid glands insufficiently effective. The purpose given work − to develop a technique of preventive maintenance of parathyroid insufficiency at sick of the thyroid gland cancer, not demanding the difficult instruments, not giving the complications, easily repeated and yielding good, stable results.
Materials and Methods: We apply a method of intraoperative conservations of parathyroid glands at 57 patients. The method description: necessary instruments: the Preparation of Alasens (a hydrochloride of 5-aminolevulinic acid) at the rate of 30 mg/kg. Sources of optical radiation of firm “Charles Shtorts” − Germany, with a wavelength in a range from 385 to 460 nanometers.
Before operative measure performance (as primary, and reoperation) at patients parathormone and calcium level is investigated. Further in day of operation 2.5−3 hours prior to an intubation the preparation alasens (at the rate of 30 mg/kg) perorally is accepted.
Intraoperative fluorescent navigation of parathyroid glands is carried out. At detection of fluorescent sites urgent cytologic research (acknowledgement of that a site − a parathyroid gland tissue) is carried out. Preparation excision is made. In the absence of oncologic contraindications allocation and a transposition (if necessary − autografting) parathyroid glands is performed.
For an estimation of efficiency of conservation of parathyroid glands control of level of a parathormone for 7, 27 and 57 days after operation and calcium for 1, 3, 7 days after operation and further each 10 days is carried out.
Results and Discussion: As a result of application of the described method the probability of development of parathyroid insufficiency decreases, accuracy of visualization and conservation of parathyroid glands raises, application of the radioactive isotopes isn’t required, the given technique is easily reproduced.
Conclusion: At application of the given technique it was possible to save the function of parathyroid glands after excision/resection of a thyroid gland at a significant amount of patients.

8585 POSTER

Efficacy of Cetuximab Alone or in Combination With Docetaxel as Second-line Treatment in Patients With Recurrent or Metastatic (R/M) Squamous Cell Carcinoma of the Head and Neck (SCCHN)

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Background: Cetuximab in combination with platinum and 5FU has become a standard in first-line treatment of patients (pts) with R/M SCCHN. Data has shown that single-agent cetuximab may confer clinical benefits for patients with platinum-refractory metastatic disease. The objective of this retrospective study was to evaluate the disease control rate and progression-free survival (PFS) of pts with SCCHN treated in our institution with cetuximab alone or combined with docetaxel in second or third line chemotherapy.
Methods: Patients with R/M SCCHN histologically proven and treated in second or third- line with cetuximab alone or combined with docetaxel between 2006 and 2010 were retrospectively reviewed. Response rates were evaluated according to RECIST criteria. Median PFS was estimated by the Kaplan–Meier method.
Results: Twenty six pts could be evaluated: 81% male, median age 55 years (32−75), 18.5% metastatic. Oral cavity, oropharynx and hypopharynx was respectively found as the primary site in 48%, 26% and 18.5% of pts. 70% of the pts received the cetuximab as second-line therapy and 30% as third- line treatment. Treatment was respectively based on cetuximab