over the course of the last 15 years. Previously the images were stored and categorized according to social security number, diagnosis, as well as certain terms, which every surgeon could decide and write down individually for each patient. The large number of photographs made it increasingly difficult to navigate through the database and extract relevant photos. To solve this, we developed a standardized model for registering and archiving digital photographs that could then be incorporated into the photo-database software. This allows users to search for specific procedures, anatomical areas or surgical techniques, and to cross referencing these, for example all local flaps on the nose, preformed by Dr. Doe, due to carcinomas.

RESULTS: Since the introduction of the software we have stored all our photos using this new model. It has proven more time efficient and easy to handle for pre- as well as post-operative storing of the images.

CONCLUSIONS: The use of this standardized model has helped us in pre-operative consulting of patients and post-operative evaluation of our results as well as eased the process of extracting the relevant photos when doing scientific research.

17.20 LIGASURE IMPACT REDUCES BLOOD LOSS, COMPLICATIONS AND RE-OPERATION OCCURRENCE IN ABDOMINOPLASTY: A COMPARATIVE STUDY

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INTRODUCTION: The most effective dissection technique for raising the flap in abdominoplasty is still controversial. Bipolar coagulation (LigaSure Impact®, LS, Covidien, Dublin, Ireland) is an energy device commonly used among different surgical specialties to reduce morbidity and implement outcomes. We investigated the effectiveness of LS in abdominoplasty compared with the conventional techniques (CT), scalpel and/or diathermia.

MATERIALS AND METHODS: Patients underwent primary abdominoplasty at a single center over 8 years were retrospectively reviewed. Bodylift, secondary operations and procedures with other energy devices were excluded. Ninety-four patients underwent a primary abdominoplasty and were divided into two groups on basis of the dissection technique: LigaSure (LS) group (29 patients) and the conventional technique (CT) group (65 patients). Patient demographics, perioperative parameters, postoperative complications and hospital stay were compared. Early complications were graded according to Clavien-Dindo classification system.

RESULTS: Significant differences were found in intraoperative blood loss favouring LS-group (259.6 ± 198.8 ml vs 377.9 ± 190.0 ml, p = 0.004) and blood transfusion rates (13.8% vs 35.4%, p = 0.047). Overall complications occurrence, Clavien-Dindo grade II (24.1% vs 55.4%) and grade III (13.8% vs 30.8%) complications were significantly lower in LS-group (respectively, p = 0.005, p = 0.007, p = 0.016). Late (>30 days) re-operation rate was 6.9% in LS-group and 27.7% in CT-group, which was significantly different (p = 0.0028). However, operative time was significantly longer in LS-group (168.6 ± 121.2 vs 179.7 ± 57.6 min, p = 0.005), while a tendency to shorter hospital stay was found in LS-group (3.6 ± 1.1 days vs 4.6 ± 3.2 days, p = 0.081). Specific wound complications showed no significant difference.

CONCLUSIONS: LigaSure Impact may be beneficial in improving abdominoplasty outcomes because it might reduce blood loss, need for transfusions, complications and re-operations.

17.30 TOTAL KNEE ARTHROPLASTY IN CASES OF A SOFT TISSUES DEFICIT

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INTRODUCTION: Arthroplasty in patients with primary and metastatic tumors of long bones is a difficult issue due to a deficit of soft tissue needed to cover the prosthesis. Expanding the indications for arthroplasty in these patients is possible due to the development of the plastic phase of the operation.
MATERIALS AND METHODS: From 2009 to 2015, 72 patients with tumor lesions of long bones forming the knee underwent surgeries that included segmental bone resection with further arthroplasty. Knee replacement was carried out in cases of the distal femur lesions – 45 cases and proximal tibia – 27. It should be noted that 28 patients needed the additional plastic phase of the operation to form an adequate muscle-case cover of the implant. We used muscle flaps formed from medial gastrocnemius muscle (27), medial vastus (1). The functional activity of the operated part was determined on a MSTS scale. To determine the quality of life of patients after resection of the articular segment of bone tumor and knee joint we used a questionnaire EORTC QLQ-C30, where quality of life is determined in points.

RESULTS: Out of 28 patients that underwent plastic surgery stage, infectious complications were observed in 1 (3.5%) patient. Out of the remaining 44 operated patients infectious complications were observed in 12 (27.27%) patients. Limb functional outcome in patients who underwent plastic surgery phase after resection of the distal femur and knee replacement was 82.2%, after resection of the proximal tibia - 78.6%. The quality of life of patients after knee replacement (questionnaire EORTC QLQ-C30) increased from 40 to 80 points.

CONCLUSIONS: Plastic methods in cases of soft tissues deficit allowed to enhance indications for knee-replacement reduce the recurrence rate of the tumour, thus improving limb functional results and quality of life of patients.

17.40 ASSESSING CLINICAL RISK FACTORS FOR EARLY (30 DAY) AND LATE (1 YEAR) RE-ADMISSION FOLLOWING IMMEDIATE BREAST RECONSTRUCTION

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INTRODUCTION: Recent changes in US healthcare policy have focused on reducing postoperative complications and readmission rates. Understanding risk factors associated with complications may reduce re-admissions and improve clinical outcomes. Previous readmission studies have investigated the NSQIP database, but are limited to 30 days follow-up. In this study, we tracked all immediate breast reconstruction patients for readmissions during the first postoperative year.

MATERIALS AND METHODS: After IRB approval, breast reconstruction patients (2010–2012) with minimum of 1-year of follow-up were evaluated. Demographic data, comorbidities, complications, and readmission rates for <30 days, 31–90 days, and 91 days to 1 year, and non-admission emergency room (ER) visits for the first postoperative year were analyzed. Statistical analysis was performed using a Generalized mixed linear effect model.

RESULTS: 353 patients were included in our cohort. Readmission rates were 9.35% for <30 days, 10.76% for 31–90 days, and 20.12% for 91 days to 1 year. 30 day readmission rates were correlated with surgical site infection (SSI) (OR=11.67, P<0.001), seroma (OR=5.44, P=0.0007), preoperative bra size of D or greater (OR=3.47, P=0.015), and BMI > 30 (OR=2.23, P=0.041). 31–90 day readmission rates were significantly increased by SSI (OR=5.48, P= 0.003), implant infection (OR=7.48, P<0.001), BMI > 30 (OR=2.19, P= 0.024), and preoperative bra size of D or greater (OR=2.87, P= 0.015). Finally, 91 day to 1 year readmissions were linked to cancer stage 3/4 (OR=2.1, P= 0.013), SSI (OR=4.6, P= 0.008), and implant infection (OR=63.36, P= 0.004). SSI and preoperative bra size of D or greater were significant risk factors for ER visits.

CONCLUSIONS: This study addresses the short follow-up of NSQIP readmissions studies, which may not capture late wound healing/infectious complications or the effects of adjuvant breast cancer therapy. The independent risks factors identified may improve risk stratification thus potentially improving clinical outcomes in immediate breast reconstruction.

17.50 WOUND CONTAMINATION DOES NOT AFFECT OUTCOMES WITH ACCELLULAR DERMAL MATRIX IN ABDOMINAL WALL RECONSTRUCTION: EVIDENCE FROM PROPENSITY SCORE ANALYSIS