

recommend it as an alternative to silver sulfadiazine, especially in patients with low economical condition or in those who show adverse reactions to silver sulfadiazine. It appears to be effective in debridement of necrotic tissue, preventing burn wound infection, and providing a granulating wound suitable for the application of a split-thickness skin graft.

### Understanding breast surgeon referral patterns and their influence on breast reconstruction rates

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**INTRODUCTION:** Less than 20% of patients (pts) undergo reconstruction after mastectomy, despite its documented quality of life benefits. Studies show that most general surgeons do not discuss reconstruction with their pts; this affects the likelihood of reconstruction. Our purposes were to examine the likelihood of referral and reconstruction within a cohort of mastectomy pts, to compare reconstruction rates between those referred (REF) and not referred (NotREF) for plastic surgery, and to examine differences between the groups to understand potential factors influencing referral.

**METHODS:** A retrospective review of the records of 471 consecutive female mastectomy pts from 2003 to 2007. Demographics evaluated were age, BMI, DM, laterality (unilateral vs bilateral), smoking history, insurance type, and race.

**RESULTS:** Of 471 pts with age median/range 61 years (19–94 years), 313 (66.4%) were referred. 287 (91.7%) REF were reconstructed. 100% NotREF were not reconstructed. The groups differed significantly in age ( $51.1 \pm 11.8$  REF group vs  $61.84 \pm 14.5$  NotREF group;  $p < 0.0001$ ); BMI ( $25.9 \pm 5.6$  REF vs  $27.8 \pm 7.8$  NotREF;  $p < 0.026$ ); diabetes (DM) (REF 10/3.5% vs NotREF 23/15%;  $p < 0.0001$ ); laterality (83/27% REF group vs 23/14% NotREF underwent bilateral mastectomies;  $p < 0.003$ ). The groups did not differ significantly in race, tobacco use, or insurance. Age and DM were significant independent factors for referral with odds ratio 0.945, 95% confidence interval (CI) 0.92–0.96;  $p < 0.0001$ ; and 0.317, 95% CI 0.13–0.75;  $p < 0.01$ , correspondingly. Age, BMI, DM, and current smoking were significant independent factors for reconstruction ( $p < 0.0001$ ,  $< 0.025$ ,  $< 0.025$ , and  $< 0.05$ ).

**CONCLUSIONS:** Factors influencing referral are age and DM; those influencing reconstruction are age, BMI, DM, and current smoking. Future prospective studies are warranted.

### Does routine use of ultrasound result in additional thyroid procedures in patients with primary hyperparathyroidism?

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**INTRODUCTION:** Minimally invasive parathyroidectomy for primary hyperparathyroidism (1HPT) depends upon accurate preoper-

ative imaging. Cervical ultrasound is commonly utilized to localize parathyroid adenomas but can lead to discovery of concomitant thyroid gland pathology requiring modification of the operative approach. We were interested in determining if incidental discovery of these thyroid lesions affected this patient population.

**METHODS:** A prospective database of patients undergoing parathyroidectomy was analyzed for thyroid pathology discovered by ultrasound. The lesions were biopsied if suspicious or  $> 1$  cm in size on ultrasound, and operative management was adjusted accordingly. Clinical data were correlated with operative decision making.

**RESULTS:** Between July 2002 and January 2009, 186 patients with 1HPT underwent ultrasound. Concomitant thyroid pathology was noted in 47 (25%) patients. 20 patients (43%) underwent fine-needle aspiration of a thyroid nodule. 6 patients (13%) underwent a thyroid operation not related to parathyroid disease, 3 partial lobectomies for benign nodules and 3 total thyroidectomies for malignancy. One was for confirmed papillary thyroid cancer, and the other two were for an indeterminate biopsy. Both of the indeterminate nodules were benign, but one patient had additional microscopic papillary cancer discovered. All patients were cured of 1HPT at last follow-up.

**CONCLUSIONS:** Nearly 1 in 4 patients with 1HPT had concomitant thyroid pathology on ultrasound exam. Almost half of these patients underwent interventions to assess and treat the thyroid pathology, and 15% eventually had malignant thyroid pathology. Thus, the routine use of ultrasound in patients with 1HPT leads to additional thyroid interventions as well as the discovery of unrecognized thyroid cancer.

### Computer-based learning module increases shared decision making in breast reconstruction

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**INTRODUCTION:** Shared decision making combines evidence-based medicine with patient preferences. Individuals who are actively engaged in their own health care management with their physicians have been shown to experience not only increased compliance, but also higher satisfaction and better outcomes. We hypothesize that a computer-based learning module for breast reconstruction increases patient involvement in the decision-making process.

**METHODS:** Women who underwent either immediate or delayed breast reconstruction at an academic teaching hospital from 2004 to 2007 were identified. Patients meeting inclusion criteria were mailed questionnaires on demographics, informational resources, and decision-making processes. Questionnaire results were divided into 2 groups for analysis: patients who received a standard surgeon consultation and patients who were shown a computer-based decision aid in addition to the standard consultation.

**RESULTS:** Of the total 255 (75.9%) responders, 168 patients were shown the computer-based decision aid and 87 patients were not. The majority of patients in both groups identified their surgical oncologist and the Internet as resources. Patients who used the computer-based learning module reported greater involvement in choosing type of reconstruction ( $p < 0.001$ ). Additionally, these patients believed that they were offered a greater number of reconstructive options ( $p < 0.001$ ) and were more satisfied with the amount of information provided ( $p = 0.049$ ).

	No Computer (n = 87)	Computer (n = 168)	P-Value
Patient involvement in decision making			<0.001*
1-Patient only	3 (3.4%)	21 (12.5%)	
2-Mostly patient	44 (50.6%)	104 (61.9%)	
3-Equally shared	34 (39.1%)	38 (22.6%)	
4-Mostly plastic surgeon	3 (3.4%)	3 (1.8%)	
5-No involvement	2 (2.3%)	0 (0%)	
NA	1 (1.1%)	2 (1.2%)	
Learning modality			
PCP	6 (6.9%)	14 (8.3%)	0.686^
Oncologist	19 (21.8%)	36 (21.4%)	0.940^
Surgical oncologist	64 (73.6%)	96 (57.1%)	0.010^
Friend/family	34 (39.1%)	64 (38.1%)	0.878^
Internet	46 (59.2%)	128 (76.2%)	<0.001^
Book	22 (25.3%)	52 (31.0%)	0.345^
Magazine/newspaper/TV	2 (2.3%)	7 (4.2%)	0.571#
Other	13 (14.9%)	14 (8.3%)	0.104^
Number of reconstruction types discussed			<0.001*
1	31 (35.6%)	38 (22.6%)	
2	31 (35.6%)	44 (26.2%)	
3	20 (23.0%)	42 (25.0%)	
4	5 (5.7%)	40 (23.8%)	
5	2 (2.3%)	4 (2.4%)	
Satisfied by amount of info provided			0.049*
1 Very unsatisfied	4 (4.6%)	6 (3.6%)	
2 Somewhat unsatisfied	6 (6.9%)	5 (3.0%)	
3 Neutral	3 (3.4%)	3 (1.8%)	
4 Mostly satisfied	9 (10.3%)	12 (7.1%)	
5 Very satisfied	65 (74.7%)	141 (83.9%)	
NA	0	1 (0.6)	

\*Wilcoxon ranked sum.

^Chi-squared.

#Fisher exact.

**CONCLUSIONS:** A computer-based learning module allows patients to assimilate information and actively participate in choosing type of breast reconstruction. Use of this educational modality rep-

resents a simple and effective way to improve the shared decision-making process by increasing patient involvement and satisfaction.

### Satisfaction with work-life balance in plastic surgery: Results from a national survey

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**INTRODUCTION:** Plastic surgery has experienced a shift in the demographics of its workforce, with more physicians prioritizing work-life balance when compared with previous generations. Our purpose was to describe patterns and correlates of satisfaction with work-life balance among US plastic surgeons.

**METHODS:** A mailed, self-administered survey was sent to 354 male and 354 female plastic surgeons randomly sampled from the American Society of Plastic Surgeons membership (71% response rate). The dependent variable was satisfaction with work-life balance, which was created by scaling 3 Likert-style questions. The independent variables represented surgeon sociodemographic and professional characteristics. Logistic regression evaluated associations between dependent and independent factors.

**RESULTS:** The majority (82%) of respondents was married with children, but only 15% indicated that they were their children's primary caregiver. Most were in solo practice (57%), worked <60 hours per week (77%), and took ER-call (66%). Less than one third (30%) of surgeons participated in training residents. Factors independently associated with diminished satisfaction with work-life balance were being female (odds ratio [OR] = 0.60; 95% confidence interval [CI], 0.39–0.91), working >60 hours per week (vs <60 hours per week, OR = 0.42; 95% CI, 0.26–0.69), and having ER call responsibilities (vs no ER call, OR = 0.50; 95% CI, 0.28–0.71). Furthermore, having a <25% cosmetic surgery practice mix was also associated with lower satisfaction (vs >75% cosmetic practice mix, OR = 0.54; 95% CI, 0.30–0.98).

**CONCLUSIONS:** Satisfaction with work-life balance was reduced among female plastic surgeons, those who worked > 60 hours/week, and who took ER call. Those with primarily reconstructive practices were also less satisfied. Future research should focus on improving a physician's ability to cope with the competing demands of work and family.