



Aspirin inhibits wound healing

A study in the *Journal of Experimental Medicine* describes how aspirin inhibits wound healing and paves the way for the development of new drugs to promote healing.

The authors of “**12-hydroxyheptadecatrienoic (12-HHT) acid promotes epidermal wound healing by accelerating keratinocyte migration via the BLT2 receptor**” report that aspirin reduced 12-HHT production, which resulted in delayed wound closure in mice. However, a synthetic leukotriene B₄ receptor 2 (BLT2) agonist increased the speed of wound closure in cultured cells and in diabetic mice.

The study suggests that BLT2 agonists may accelerate wound healing, particularly for intractable wounds such as diabetic ulcers.



FDA approves new drug for skin infections

The U.S. Food and Drug Administration (FDA) has **approved** Dalvance (dalbavan-

cin), a new antibacterial drug used to treat adults with skin infections.

Dalvance is indicated for the treatment of acute bacterial skin and skin-structure infections caused by certain bacteria, such as *Staphylococcus aureus* (including methicillin-susceptible and methicillin-resistant strains) and *Streptococcus pyogenes*. The drug is administered I.V., and the most common adverse effects are nausea, headache, and diarrhea.

Dalvance is the first drug designated as a Qualified Infectious Disease Product (QIDP) to receive FDA approval. Under the Generating Antibiotic Incentives Now title of the FDA Safety and Innovation Act, Dalvance was granted QIDP designation because it's an antibacterial or antifungal human drug intended to treat serious or life-threatening infections.



NPWT has positive effects for high-risk surgical incisions

“**Value of incisional negative pressure wound therapy** (NPWT) in orthopaedic surgery,” a review article in *International Wound Journal*, reports that application of NPWT on high-risk closed surgical incisions after total ankle replacement or calcaneal fracture repair prevents hematoma and wound dehiscence. NPWT also decreased swelling, pain, and healing time.

Other effects of NPWT included decreased infection and wound-healing

problems after acetabular fracture repair, and reduced incidence of postoperative seroma and improved wound healing after total hip arthroplasty.

The authors conclude that incisional NPWT “can help to reduce risk of delayed wound healing and infection after severe trauma and orthopaedic interventions.”



Treatment with insulin and metformin increases mortality risk

Patients with diabetes who take insulin and metformin, versus insulin and a sulfonylurea, are at increased risk for non-fatal cardiovascular outcomes, such as stroke, and mortality, according to a study in *JAMA*.

The authors of “**Association between intensification of metformin treatment with insulin vs sulfonylureas and cardiovascular events and all-cause mortality among patients with diabetes**” studied 178,341 patients. Among these patients, 2,948 added insulin and 39,990 added a sulfonylurea; the mean follow-up after the change in therapy was 14 months.

Complication rates after ostomy surgery are high

“**Complication rates of ostomy surgery are high and vary significantly between hospitals,**” in *Diseases of the Colon & Rectum*, included



4,250 patients who underwent ostomy creation surgery.

The unadjusted morbidity and mortality rates were 43.9% and 10.7%. Risk-adjusted morbidity rates varied significantly among the 34 hospitals participating in the Michigan Surgical Quality Collaborative, ranging from 31.2% to 60.8%.



Proactive program may reduce lymphedema risk

According to a study in the *Annals of Surgical Oncology*, a proactive education and behavioral program focused on self-care strategies may reduce the risk of lymphedema in breast cancer survivors. The strategies promote lymph flow and optimize body mass index (BMI).

“**Proactive approach to lymphedema risk reduction: A prospective study**” included 140 patients who participated in The Optimal Lymph Flow program; 134 completed the study. Most patients (97%) had improved their preoperative limb volume and BMI at the end of the study, which was 12 months after cancer surgery. Four patients

had measureable lymphedema; in two of them, limb volume returned to the preoperative level without compression therapy but with the maintenance of the exercises to promote daily lymph flow.



SCHD effective for pressure ulcers

Silver-containing hydrofibre dressing (SCHD; Aquacel® Ag) is a safe, effective, and easy-to-apply treatment for pressure ulcers and may eliminate the need for antibiotic therapy, according to a study in *Wound Medicine*.

The authors of “**Effective management of pressure ulcers using Hydrofibre technology with silver ions**” studied 20 patients with pressure ulcers who were treated with SCHD for 1 week. Wound bioburden decreased by 80% over the treatment period, with 60% of wounds showing no bacterial burden at the end of the study.



Study notes strategies for wound pruritus

Methods such as habit reversal, suggestions, relaxation, massage, and itch-coping programs have the potential to reduce itching, according to “**Psychological management of wound pruritus**,” a study in the *Journal of Wound Care*. The researchers con-

ducted a review of articles obtained from multiple databases.

Stoma reversal techniques studied

“**Circular closure is associated with the lowest rate of surgical site infection following stoma reversal: A systematic review and multiple treatment meta-analysis**,” in *Colorectal Disease*, included 15 studies for a total of 2,921 cases of stoma reversal. However, the study’s authors noted that, overall, the quality of the studies was poor, so that it wasn’t possible to reach any definite conclusions.



Pressure ulcers reduce QOL in patients with SCI

A study in the *Journal of Wound Care* reports that pressure ulcers have a negative effect on the health-related quality of life (QOL) and self-esteem of patients with traumatic spinal cord injury (SCI).

“**Quality of life and self-esteem in patients with paraplegia and pressure ulcers: A controlled, cross-sectional study**” included 120 patients evenly distributed between those with pressure ulcers and those without. The researchers used the generic Medical Outcomes Study 36-Item Short Form Health Survey (SF-36) questionnaire and the Rosenberg Self-Esteem/UNIFESP-EPM Scale to assess patients. Patients with SCI who had pressure ulcers had significantly lower scores on both scales compared to those with no pressure ulcers. ■