Basic Ferric Sulfate Solution or Monsel's Solution

Ferric subsulfate solution is a styptic or haemostatic agent used after superficial skin biopsies. Ferric subsulfate solution is also known as Basic Ferric Sulfate Solution or Monsel's Solution. It is has a recognised formula published in United States Pharmacopeia 29

Active ingredients
Ferric subsulfate solution is prepared from ferrous sulfate, sulfuric acid and nitric acid. It contains, in each 100 mL, basic ferric sulfate equivalent to not less than 20g and not more than 22g of iron.

Storage
Ferric subsulfate solution should be stored in airtight containers at a temperature above 22 degrees Celsius. Crystallisation may occur at temperatures below 22 degrees. Warming the solution may redissolve the crystals. The solution should be protected from light.

Study
“Monsel's paste after LEEP: good results, low cost

OB/GYN News, March 1, 2006 by Jane Salodof MacNeil

SCOTTSDALE, ARIZ. -- Monsel's paste produced less pain and worked faster than fulguration by a ball electrode in a randomized clinical trial comparing the two methods for achieving hemostasis after the loop electrosurgical excision procedure; the statistical advantages were not clinically significant, however.

"It basically comes down to either method is acceptable," Dr. Gary H. Lipscomb said at the annual meeting of the Central Association of Obstetricians and Gynecologists.

Dr. Lipscomb, director of the division of gynecologic specialties at the University of Tennessee Health Science Center in Memphis, and his coinvestigators compared the two methods in 100 women who underwent the loop electrosurgical excision procedure (LEEP) for cervical dysplasia.

They randomized the women by computer-driven numbers placed in sealed envelopes that were opened only after each patient agreed to participate in the study. Six patients (two randomized to Monsel's paste and four to ball electrode) required additional hemostasis with an alternative method.

In 47 women treated with Monsel's paste, physicians were able to stop bleeding in 118.7 seconds on average. Fulguration with 50 watts of modulated current passing through a 5-mm ball electrode took significantly longer at 207.5 seconds for 53 women in the other cohort. Dr. Lipscomb said the time difference, being little more than a minute, did not matter clinically.

Similarly, even though women randomized to Monsel's paste had significantly less pain statistically, he said neither group experienced much pain during the procedures. The average scores on a 100-mm visual analog scale were 2.2 with Monsel's paste and 11.1 with ball electrode. In both groups, the standard anesthesia protocol for the LEEP procedure called for 1% lidocaine with 1:100,000 epinephrine.

Although blood loss was slightly higher with fulguration at 20 mL, compared with 15 mL with Monsel's paste, the difference was not statistically significant. Vaginal discharge was similar with the two techniques. Follow-up information was available for less than a quarter of the patients, but no difference was observed in the recurrence of abnormal Pap smears.

Based on these outcomes, Dr. Lipscomb said physicians could feel comfortable choosing either Monsel's paste or ball electrode. He suggested the paste might have an additional advantage, not covered in the study, because it is "dirt cheap."

Discussant Dr. Linda Brubaker congratulated Dr. Lipscomb for "a simple and sweet study" with an impact on a decision clinicians make every day.

Dr. Brubaker, director of female pelvic medicine and reconstructive surgery at Loyola University Medical Center in Maywood, Ill., said the trial "demonstrated the clinical utility of two common hemostatic techniques that most of us use based on training or habit."