Experiences with the Dissecting Microscope

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My office is in a turmoil. I lost an experienced technician and made the switch to the dissecting microscope at the same time. Either situation is disturbing, but the combination can be extremely difficult.

I am training 3 more technicians and in the process I have learned to be a pretty good technician myself. Cutting and planting grafts gives the surgeon new insight into the procedure. I see how H-factor can easily result in graft damage and poor growth. Joe Greco, a very astute and bright technician, not an MD, was the first to recognize and describe this.

Planting and cutting can be very monotonous and frustrating, and can lead to graft damage. It is very important to watch technicians and understand their problems. Knowing how to plant and cut makes you understand the problems and helps you to avoid them. For instance, I cut my strip much more carefully now and try to avoid cut-off hairs. I check the grafts much more carefully and observe the planting and cutting process on each patient, and also plant and cut on each patient. I periodically check grafts from each technician. Each patient presents its own peculiarities. Some have very deep scalps; some have thin scalps; some have tight scalps; some have loose scalps. Each of the variations affects the technical aspects of the procedure. Bleeding can be a problem because it makes planting so much more difficult. Popping also makes planting more difficult. I have found dilators help with bleeders and poppers.

I have adopted Bob Limmer's method of planting. He plants at the same time he makes the holes. In other words, his technicians make the hole with a standard 20, 18, 16, or 14 gauge needle, and when they withdraw the needle, they immediately insert the graft. In this way, the needle actually acts as a dilator, making the planting easier. This system gives the technicians doing the planting much more responsibility, and they must fully understand where the holes are to be made, and the proper angle and direction of the holes.

I noticed that to the naked eye, the grafts cut with the microscope did not look nearly as uniform and perfect as the grafts cut without the microscope. However, when the grafts are examined under a microscope, it was obvious that the microscope-grafts were superior with fewer cut-off hairs and more complete bundles. I have noticed, however, that as my technicians get better, their grafts become more uniform.

So far I have not been able to identify the bundles quite as clearly as Dr. Seager claims. I am still not completely sure that getting each entire bundle is of supreme importance. I am sure donor hair is saved using the microscope, because there is less waste and fewer cut-off hairs, but it will take at least 4-6 months for the patients to return to be completely sure about this. I have the definite feeling that I am getting more hairs out of the same size strip than I did previously.

I have developed a new system of quality control. Periodically, I randomly select 4 to 5 grafts from each cutter and examine them under the microscope. This gives me a chance to compare the work of each and also to keep up with the quality of the entire group. These grafts I learned must be examined under the microscope because of tiny telogen hairs. Gray hairs and many cut-off hairs are impossible to see without it.

Forecast

After using this method for about 4 to 6 weeks, and without knowing final results because of the time it takes to grow, I see this as the method of the future. I also see much more time and expense and much more surgeon involvement — at least during the early months of technique transition. ■

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