Malpositioning a Key Concern

Surgery from page 1

“Several years ago, when less invasive ap-
proaches were introduced, many surgeons
felt it was a foolish idea,” said Aaron Rosen-
berg, M.D., of Rush University Medical
Center in Chicago. “Ask torturers how many
are doing small incisions, and everybody
raises their hands.”

Scar appearance “is real for patients, and
early patients—according to the AAOS.—
have found it less acceptable and cosmetic,
and it’s minimized in the long run, for ex-
ample,” said Rosenberg. “But I will prioritize
the long- and short-term results over the
cosmetics,” Dr. Rosenberg said.

And Alfred J. Tria, M.D., of St. Peter’s Uni-
versity Hospital at Robert Wood Johnson
Medical School. New Brunswick, N.J., re-
ported that those of his patients who had
minimally invasive knee replacements (about
300) have recovered three times faster, have
one third less pain, one third less time in the
hospital, 30% less blood loss, and an in-
creased range of motion, compared with pa-
tients who underwent standard procedures.

Other physicians at the meeting present-
ed results of cohort studies and case stud-
ies that looked at short-term outcomes with
minimally invasive total hip replacement.
Some showed benefits in terms of early re-
covery and cosmetics, but others demon-
strated no differences in any factor—from
functional recovery to complications.

L. B. 200 hip replacements and 300,000 knee
replacements are done annually—increasingly in
younger, active pa-
tients—according to the AAOS.

In his “physician advisory statement”
on minimally invasive joint replacement
surgery, the American Association of Hip
and Knee Surgeons says that “most positive
results have been demonstrated by a small
number of high-volume total joint centers
in selected patient populations.”

At the AAOS meeting, orthopedic sur-
geons spoke of positive results at their own
institutions. “The trouble is, not all physi-
cians are doing small incisions, and everybody
raises their hands,” said Rosenberg.

“I have other critics of the new tech-
niques argue that the high rate of success with
traditional hip and knee replacement surgery
renders the new techniques unnecessary.

Patients are being bombarded, however,
with information about the minimally in-
vasive techniques from hospitals, compa-
nies, and some physicians. They also find
plenty on the Internet. I did a Google
search on minimally invasive total knee
replacement and found 66,000-plus sites. I
did a Medline search and found 13,” said
Thomas Thornhill, M.D., who still uses a
traditional length incision for many of
his knee replacements at Brigham and
Women’s Hospital in Boston.

Ryan S. Labovitch, M.D., an orthopedic
resident at the University of California, San
Francisco, reported at the meeting that
most of the online information about
minimally invasive hip replacement surgery is
marketing oriented and often incomplete or
inaccurate. Only 13% of Web sites described
the potential risks with either the standard or
the minimally invasive surgery, he said.

“Tell patients, I will do what I can
to make the operation as minimally invasive
as possible, but I will prioritize the long-
and short-term results over the cosmetics,” Dr.
Rosenberg said. “If you try to do it,
you get a big fat swollen elbow. You
want to avoid that; the elbow should be
soft until near the end of the opera-
tion.”

A study reported more than 10 years
ago showed that the capsular volume
capacity is about 25 ml in the normal
ebula but only about 6 ml in the con-
tacted elbow, he said.

Dr. O’Driscoll strips the capsule off the
proximal humerus and immediately
releases tissue along the lateral supra-
condylar ridge, which gives you
some space to work, to move the scope
back farther and get a bigger, better
perspective.

He removes loose bodies as they are
encountered and debrides the cap-
sule, defining it as a structure, before
cutting it. He incises the capsule start-
ing medially and progresses across lat-
erally. A distal lateral capsulotomy is the fi-
nal and most risky step. “You need to
be able to see the nerve … or know with
absolute certainty where the nerve is
and isn’t,” Dr. O’Driscoll said. “If you
have that degree of confidence, then
you’re safe to do it.”

Arthroscopy Effective
For Elbow Contracture

BY CHRISTINE KILGORE
Contributing Writer

WASHINGTON — Elbow contrac-
tures can be treated arthroscopically
with better efficacy and faster patient
recovery than traditional open surgical
techniques, Shawn W. O’Driscoll, M.D.,
said at the annual meeting of the Amer-
ican Academy of Orthopedic Surgeons.

“It’s no longer a given that compi-
cated procedures must be converted to
open surgery, said Dr. O’Driscoll, pro-

fessor of orthopedics at the Mayo Clin-
ic in Rochester, Minn. Instead, the de-
ciding factor should be the surgeon’s
level of experience.

Published data on efficacy are limit-
ed, and indications for the arthroscop-
ic approach “are still evolving,” he said
during a session on elbow stiffness and
arthrosis. But “it’s pretty clear that
[arthroscopic contracture release] is ef-
f ective.”

An analysis of results from 10 reports
of open procedures and 6 small re-
ports of arthroscopic procedures shows
that more significant improvements
are gained in extension, flexion, and
total arc of elbow motion with the
arthroscopic approach, compared with
the open surgical approach.

Average flexion, for instance,
increased from 107 degrees preopera-
tively to 123 degrees postoperatively
when contractures were treated with open
surgery.

In comparison, with the arthroscop-
ic approach, flexion increased from
114 degrees before the operation to 133
degrees after the operation, Dr.
O’Driscoll said.

The main consideration—and the
tone of the factors that creates anxiety and
limits the indications for this opera-
tion—is the risk of ulnar nerve injury,
he said.

The arthroscopy procedure involves
a straightforward, predictable sequence
of steps, but it is “more complex … the
difficulty in learning it is higher” (than
with open surgery), and the risk is
higher when you’re learning it,” Dr.
O’Driscoll noted.

“There was a time when I thought
this would never be a safe operation
in anyone’s hands,” he said. “Now I think
it’s an unsafe operation” in the hands of
surgeons who do not have the neces-
sary skills and experience.

“I’ve done over 300 cases now, and
my complication rate is lower than it is
with open surgery. Patient recovery is
faster, and efficacy is better, from my
experience,” he said.

Dr. O’Driscoll uses an anterior ap-
proach to arthroscopically release
nerves before osteoc-
tomy, and then cap-

ture. He recommended
using a scope in the
anterior or proximal
antero-
medial portal and a
retractor in the
proximoanterior

eral portal. A sec-
tral retractor can be
used in the an-
teromedial portal if
necessary.

A capsulotomy is performed from medial to lateral. The final strip of capsule over the radial nerve is released with a reverse cutting punch biopsy, as shown above.