

Anatomic Total Shoulder Arthroplasty (TSA) With the Virtual Implant Positioning™ (VIP) System vs TSA With Arthrex Implants and No Plan

Purpose

To report the early clinical outcomes of pain, function, and quality of life for patients who underwent primary anatomic TSA with Univers™ and Eclipse™ implants (Arthrex) and preoperative planning using the VIP™ system compared to patients who underwent primary anatomic TSA using the same implants without planning.

Methods

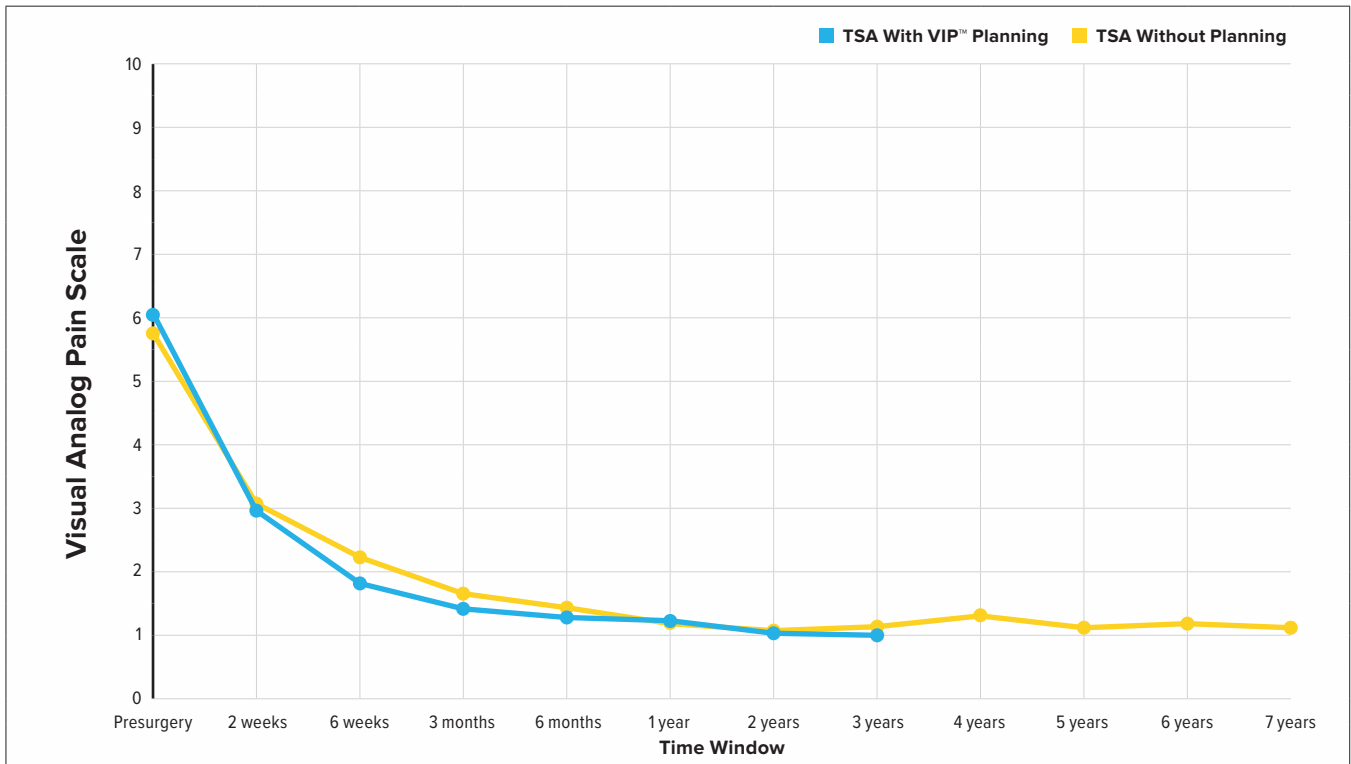
Patients enrolled in the Surgical Outcomes System™ registry who underwent primary TSA with Univers™ and Eclipse™ implants (Arthrex) and preoperative planning using the VIP™ system or primary anatomic TSA using the same implants without planning. Standard patient-reported outcomes questionnaires for VAS, ASES Shoulder Function, and SANE were administered at standard time points postoperatively. Results were reported from presurgery to 7 years postsurgery. The number of patients included per time point is shown to the right.

Time Point	# of Compliant TSA VIP Patients/Total # of Patients	# of Compliant TSA Patients Without Plan/Total # of Patients
Presurgery	185/216	685/944
1 year	126/175	597/801
2 years	98/134	445/635
3 years	26/46	315/490
5 years	n/a	139/243
7 years	n/a	9/21

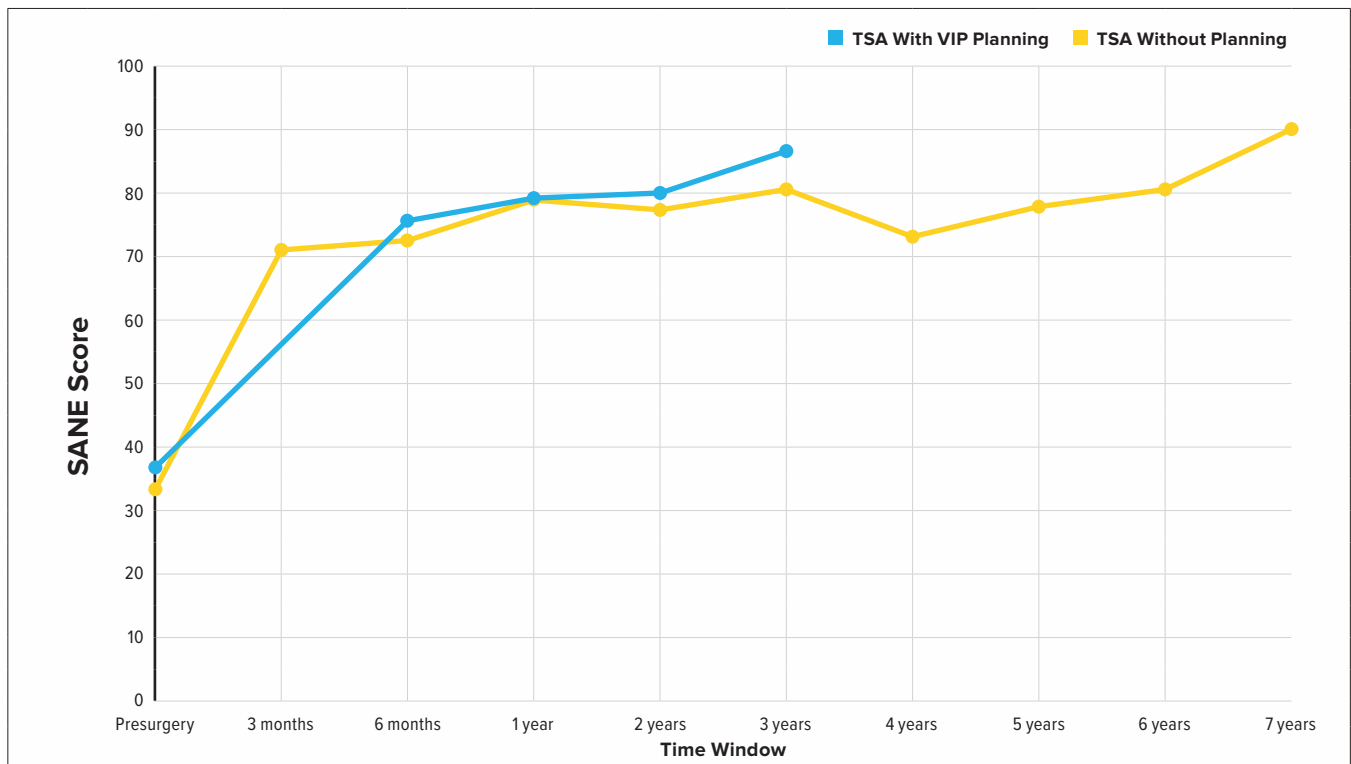
Trend Conclusion

Based on these results, the pain, function, and quality-of-life scores for patients who underwent primary anatomic TSA with Arthrex implants and preoperative planning using the VIP system trend toward better outcomes than the scores of patients who underwent primary TSA with Arthrex implants without planning. However, no claims can be made on the potential of these results without further statistical analysis. More patients and more scores are needed to evaluate long-term success.

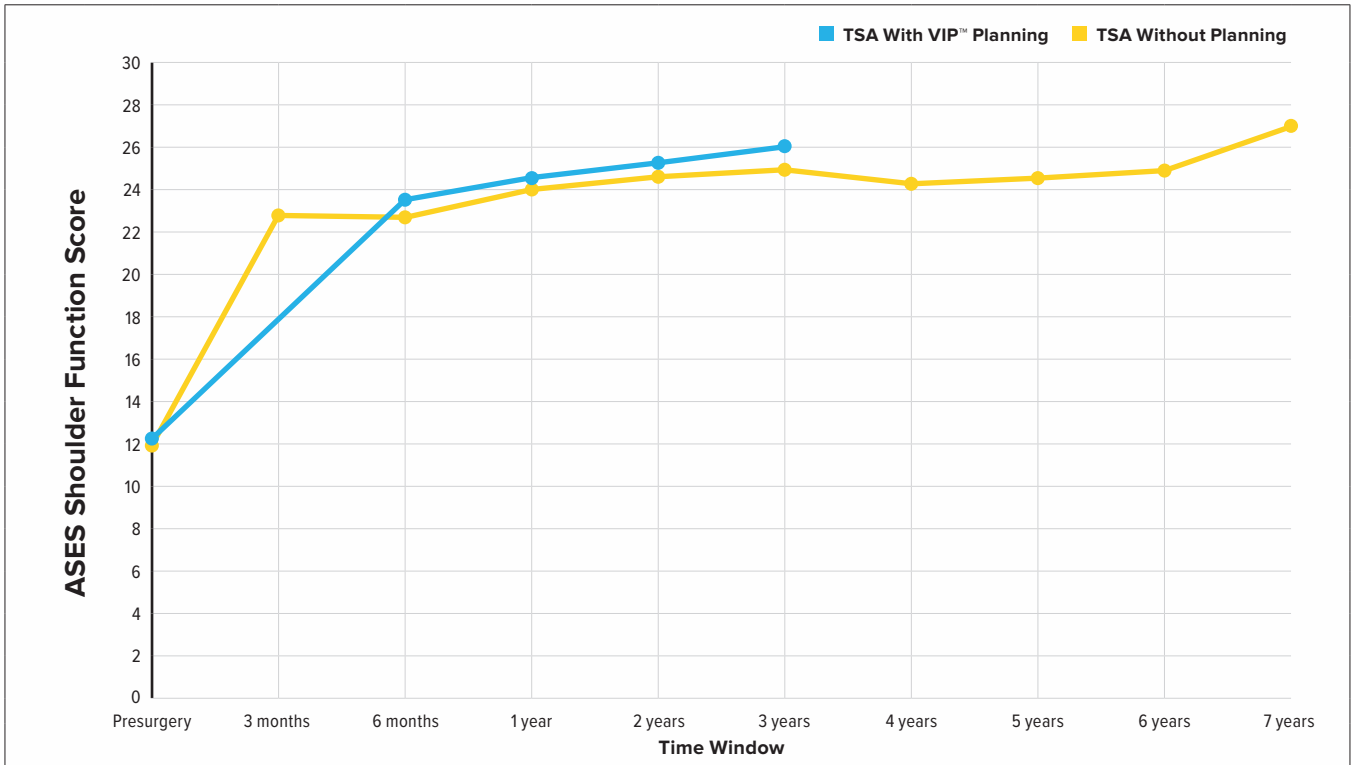
Results



VAS



SANE



ASES Function

Time Point	TSA With VIP™ Planning Avg ± STD VAS	TSA Without Planning Avg ± STD VAS
Presurgery	6.0 ± 2.2	5.6 ± 2.3
1 year	1.3 ± 1.9	1.2 ± 1.8
2 years	1.0 ± 1.7	1.1 ± 1.7
3 years	0.9 ± 1.8	1.0 ± 1.6
5 years	n/a	1.1 ± 1.7
7 years	n/a	1.2 ± 2.3

Time Point	TSA With VIP Planning Avg ± STD SANE	TSA Without Planning Avg ± STD SANE
Presurgery	36.9 ± 22.0	33.4 ± 18.7
1 year	78.5 ± 24.4	78.1 ± 22.9
2 years	80.0 ± 26.3	76.9 ± 26.2
3 years	86.5 ± 22.6	81.0 ± 23.5
5 years	n/a	77.4 ± 25.5
7 years	n/a	90.0 ± 12.1

Time Point	TSA With VIP Planning Avg ± STD ASES Function	TSA Without Planning Avg ± STD ASES Function
Presurgery	12.2 ± 4.7	11.8 ± 5.3
1 year	24.6 ± 5.3	23.9 ± 5.7
2 years	25.6 ± 5.0	24.7 ± 5.3
3 years	26.4 ± 4.7	25.3 ± 5.1
5 years	n/a	24.8 ± 5.7
7 years	n/a	27.4 ± 2.7