



Anatomic Total Shoulder Arthroplasty (TSA) Virtual Implant Positioning™ (VIP) Preoperative Planning System vs TSA With Arthrex Implants Without Planning

Purpose

To report the early clinical outcomes of pain, function, and quality of life comparing patients who underwent anatomic total shoulder arthroplasty (TSA) with Arthrex implants (Univers™ II and Apex) and preoperative planning using the VIP™ system to patients who underwent anatomic TSA with Arthrex implants and no planning.

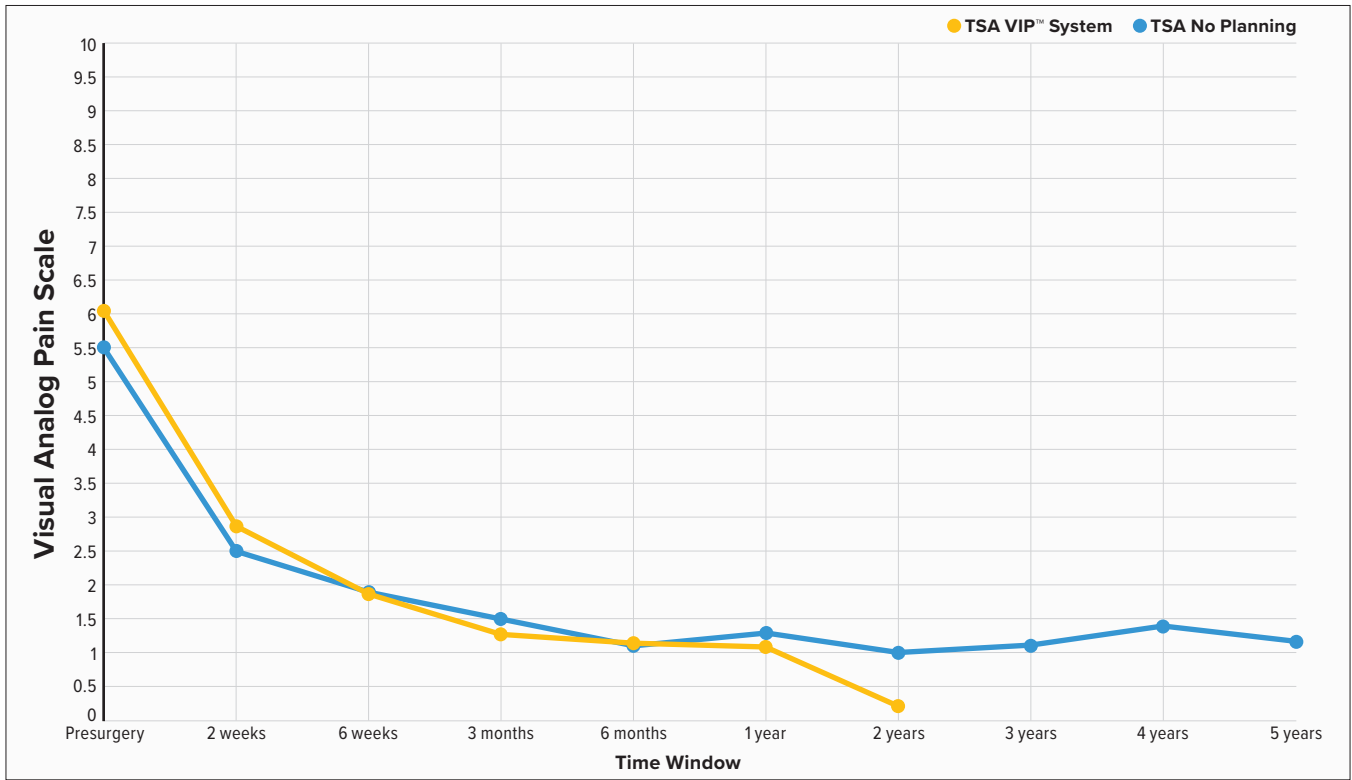
Methods

Patients enrolled in the Surgical Outcomes System™ global registry who underwent anatomic TSA with Arthrex implants (Univers II and Apex) with preoperative planning using the VIP system or patients who underwent anatomic TSA with Arthrex implants and no 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 5 years postsurgery. The number of patients included per time point is shown to the right.

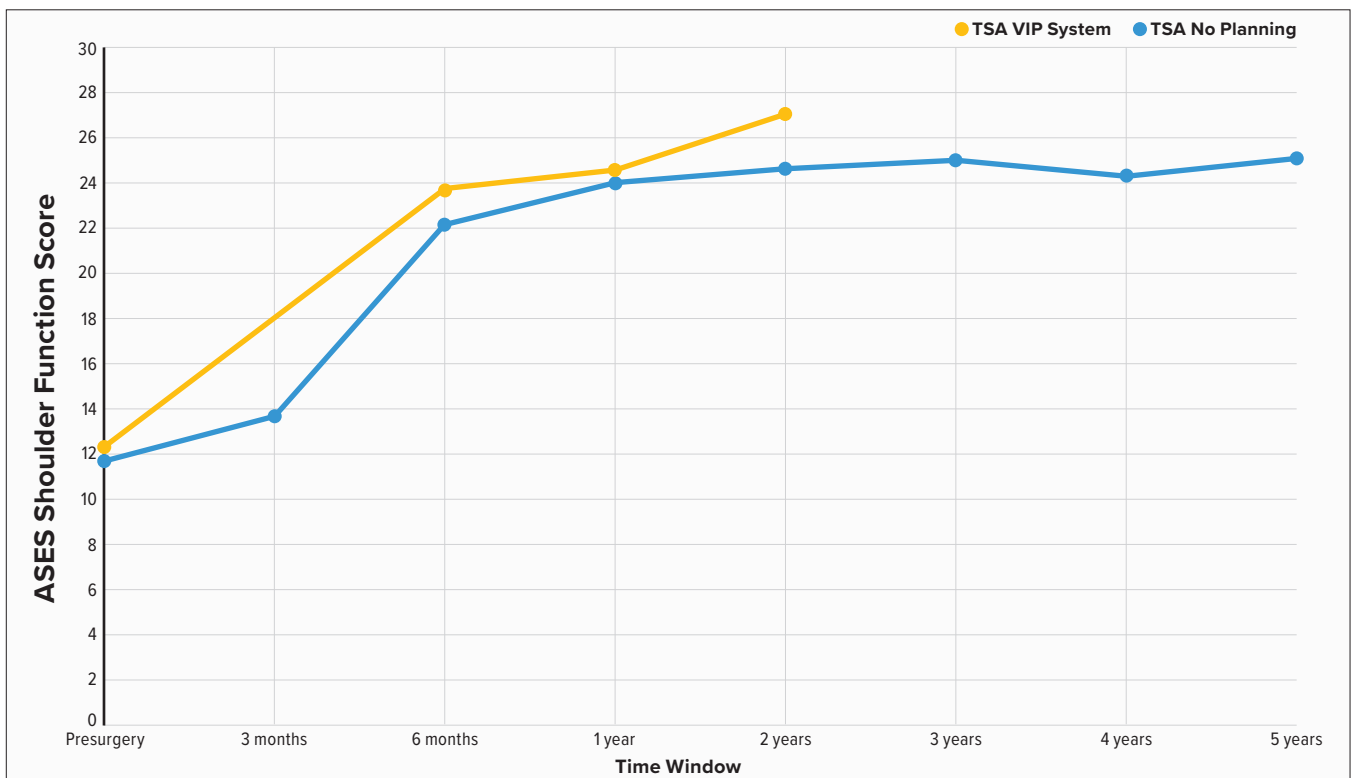
Time Point	# Compliant TSA VIP System Patients/ # Total Patients	# Compliant TSA No Planning Patients/ # Total Patients
Presurgery	139/165	539/768
6 months	111/152	516/705
1 year	99/133	471/638
2 years	28/43	342/504
5 years	N/A	73/120

Trend Conclusion

Based on these results, the pain, function, and quality-of-life scores for patients who have undergone anatomic total shoulder arthroplasty (TSA) with Arthrex implants and preoperative planning using the Virtual Implant Positioning (VIP) system trend toward better outcomes than the scores of patients who have undergone anatomic TSA with Arthrex implants and no plan. However, no claims can be made on the potential of these results without further analysis to determine statistical significance.



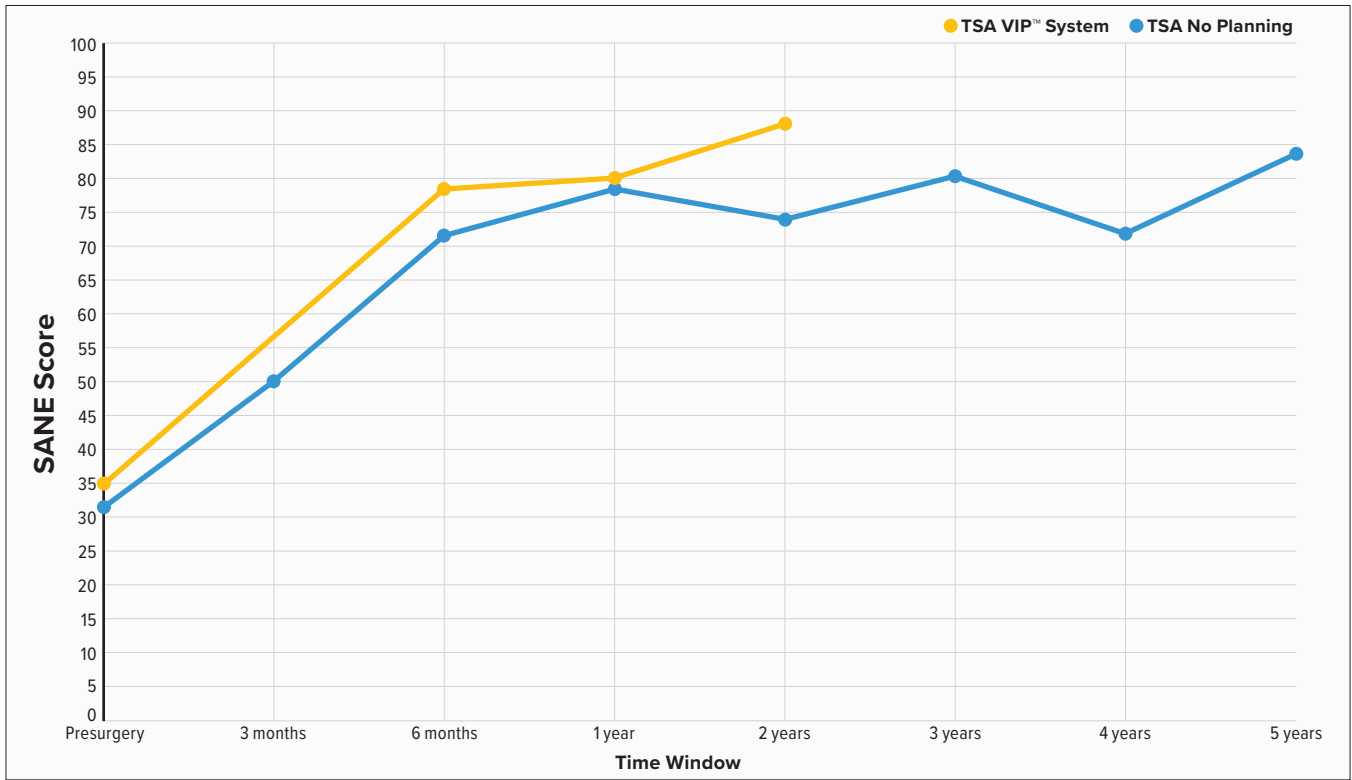
VAS



ASES Shoulder Function



Surgical Outcomes System



SANE Score



Surgical Outcomes System

Time Point	TSA VIP™ System Avg ± STD VAS	TSA No Planning Avg ± STD VAS
Presurgery	6.1 ± 2.2	5.6 ± 2.3
6 months	1.2 ± 1.5	1.5 ± 1.8
1 year	1.1 ± 1.8	1.2 ± 1.8
2 years	0.3 ± 0.6	1.1 ± 1.7
5 years	N/A	1.2 ± 1.9

Time Point	TSA VIP System Avg ± STD ASES Shoulder Function	TSA No Planning Avg ± STD ASES Shoulder Function
Presurgery	35.6 ± 21.7	32.1 ± 18.6
6 months	77.4 ± 22.6	72.3 ± 23.1
1 year	79.9 ± 23.4	78.4 ± 22.9
2 years	87.1 ± 22.8	76.4 ± 25.8
5 years	N/A	78.1 ± 26.3

Time Point	TSA VIP System Avg ± STD SANE	TSA No Planning Avg ± STD SANE
Presurgery	12.5 ± 4.8	11.6 ± 5.3
6 months	23.5 ± 5.9	22.2 ± 5.9
1 year	24.7 ± 5.4	23.9 ± 5.8
2 years	27.0 ± 3.3	24.8 ± 5.2
5 years	N/A	25.3 ± 5.3