Supplementary Material

Male and Female	HSA	TSA	RTSA
Age up to 44			
R^2	0.2938	0.249	0.07826
F	3.745	2.984	0.7642
P value	0.085	0.1182	0.4048
Equation	y=-1.355x+36.12	y=0.9455x-3.164	y=0.1636x-1.964
Age 45-59			
R^2	0.9043	0.9302	0.9323
F	85	119.8	123.8
P value	<0.0001	<0.0001	<0.0001
Equation	y=-19.62x+616.6	y=34.65x-174.9	y=19.95x-200.4
Age 60-79			
R^2	0.9486	0.3524	0.8858
F	166.1	4.897	69.82
P value	<0.0001	0.0542	<0.0001
Equation	y=-102.0x+2461	y=15.48x+898.4	y=177.9x-464.0
Age over 80			
R^2	0.8053	0.4324	0.9663
F	37.22	6.855	258.2
P value	0.0002	0.0279	<0.0001
Equation	y=-18.87x+463.5	y=-4.427x+184.8	y=124.7x-1070

Table S1: Linear regression analysis parameters for primary osteoarthritis cases in males and females post-endoprosthesis, 2012-2022.

This is a supplementary table to Figure 4. R^2 represents the coefficient of determination, and F denotes the F-statistic. The P value indicates the level of significance, showing whether the slope of the regression line is significantly different from zero. The slope coefficient in the equation indicates the calculated increase or decrease in cases per year.

Male	HSA	TSA	RTSA
Age up to 44			
R^2	0.263	0.1138	0.16
F	3.211	1.155	1.714
P value	0.1067	0.3104	0.2229
Equation	y=-1.136x+31.59	y=0.5909x-0.2273	y=0.1091x-1.582
Age 45-59			
R^2	0.915	0.9254	0.9232
F	96.83	111.6	108.2
P value	<0.0001	<0.0001	<0.0001
Equation	y=-11.88x+381.9	y=23.05x-135.5	y=11.65x-121.1
Age 60-79			
R^2	0.9284	0.8234	0.9397
F	116.7	41.98	140.2
P value	<0.0001	0.0001	<0.0001
Equation	y=-27.86x+725.9	y=19.00x+104.3	y=66.10x-341.6
Age over 80			
R^2	0.6793	0.006593	0.9592
F	19.06	0.05973	211.5
P value	0.0018	0.8124	<0.0001
Equation	y=-2.618x+63.51	y=0.1091x+14.78	y=27.73x-256.7

Table S2: Linear regression analysis parameters for primary osteoarthritis cases in males post-endoprosthesis, 2012-2022.

This is a supplementary table to Figure 5. R^2 represents the coefficient of determination, and F denotes the F-statistic. The P value indicates the level of significance, showing whether the slope of the regression line is significantly different from zero. The slope coefficient in the equation indicates the calculated increase or decrease in cases per year.

Female	HSA	TSA	RTSA
Age up to 44			
R^2	0.1391	0.2198	0.02222
F	1.455	2.535	0.2045
P value	0.2585	0.1458	0.6618
Equation	y=-0.2182x+4.527	y=0.3545x-2.936	y=0.05455x-0.3818
Age 45-59			
R^2	0.6857	0.8949	0.9022
F	19.63	76.65	83.07
P value	0.0016	<0.0001	<0.0001
Equation	y=-7.736x+234.7	y=11.60x-39.38	y=8.291x-79.31
Age 60-79			
R^2	0.9443	0.0673	0.8431
F	152.6	0.6494	48.36
P value	<0.0001	0.4411	<0.0001
Equation	y=-74.09x+1735	y=-3.518x+794.1	y=111.8x-122.4
Age over 80			
R^2	0.7922	0.5074	0.9656
F	34.3	9.272	252.5
P value	0.0002	0.0139	<0.0001
Equation	y=-16.25x+400.0	y=-4.536x+170.0	y=96.97x-812.8

Supplementary Table S3: Linear regression analysis parameters for primary osteoarthritis cases in females post-endoprosthesis, 2012-2022.

This is a supplementary table to Figure 6. R^2 represents the coefficient of determination, and F denotes the F-statistic. The P value indicates the level of significance, showing whether the slope of the regression line is significantly different from zero. The slope coefficient in the equation indicates the calculated increase or decrease in cases per year.

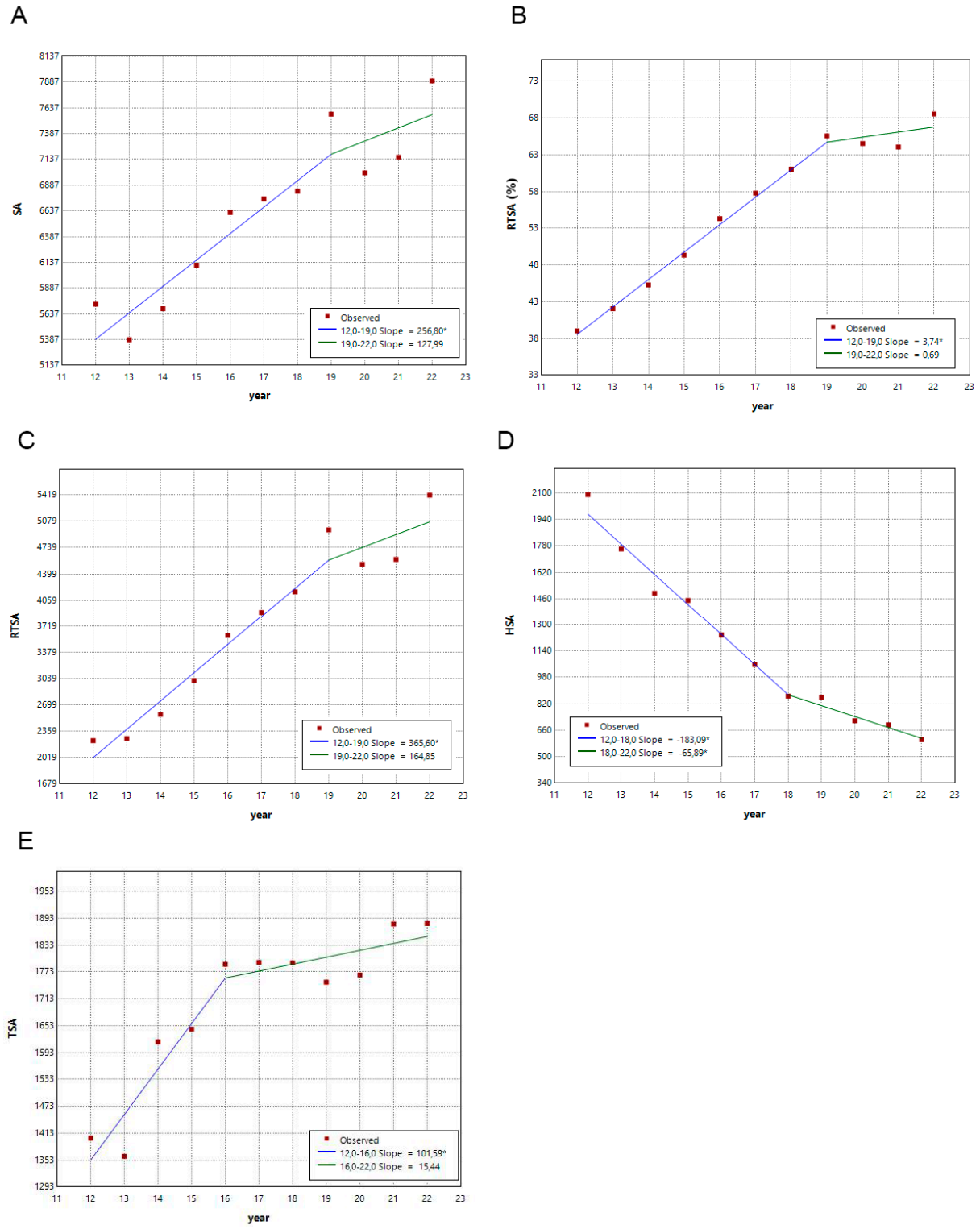

Figure S1: Joint Point Regression Analysis.

Joint Point Regression Analysis for All Shoulder Arthroplasties (SA; A), Ratio of Reverse Total Shoulder Arthroplasties (RTSA) to All Shoulder Arthroplasties (B), RTSA (C), Hemiarthroplasties (HSA; D), and Total Shoulder Arthroplasties (TSA; E) for the period 2012 to 2022. In the caption, inside the graph denotes the slope of the regression line. An asterisk (*) indicates a significant difference of the slope from zero ($p < 0.05$). The standard error of the slope is for figure A: 45.48 for 12-19 and 170.18 for 19-22, for figure B: 0.17 for 12-19 and 0.74 for 19-22, for figure C: 28.30 for 12-19 and 123.25 for 19-22, for figure D: 16.25 for 12-18 and 21.13 for 18-22, for figure E: 27.91 for 12-16 and 16.40 for 16-22.