

**Supplemental Figure 2.** Overview of microsurgical time(A). The X-axis is the number of microsurgical cases, the Y-axis is microsurgical time in minutes. CUSUM learning curve for CCJ AVF patients who was treated with microsurgery alone(B). The X-axis is the number of microsurgical cases, the Y-axis is the CUSUM value of the microsurgical time in minutes. The black diamond represents the observed CUSUM value. The black curve represents the fitting quadratic curve. The vertical dotted line displays the curve vertex, corresponding to the X-axis coordinate for 70.