introduced into an intracranial blood vessel (or other blood vessel) and positioned so that inner catheter distal opening 22 is adjacent to and/or proximal of a thrombus. Once inner catheter distal opening 22 is positioned at a position corresponding to an estimated location of the thrombus, a clinician may deliver a fluid through outer catheter lumen 16. For example, a clinician operating aspiration system 2 may operate aspiration pump 6 to generate a positive pressure in outer catheter lumen 16 and a negative pressure in inner catheter lumen 20.

[0093] The technique of FIG. 5 can include positioning inner catheter 14 within outer catheter lumen 16 at the predetermined position Pi such that at least one sidewall opening of the plurality of sidewall openings 24 remains positioned within outer catheter lumen 16 and at least one other sidewall opening of the plurality of sidewall openings 24 is positioned distal to outer catheter distal opening 18. For example, the clinician may adjust inner catheter 14 within outer catheter 12 until alignment element 26 indicates the predetermined position Pi.

[0094] In some examples, the technique of FIG. 5 may include positioning inner catheter distal opening 22 proximate to the thrombus in the vasculature so that the thrombus substantially covers inner catheter distal opening 22. In response to the thrombus substantially covering inner catheter distal opening 22, the fluid may be delivered through the at least one sidewall opening 24 into inner catheter lumen 20. In some examples, the fluid is delivered through outer catheter lumen 16 through the at least one sidewall opening 24 into inner catheter lumen 20 in response to a differential pressure between outer catheter lumen 16 and inner catheter lumen 20 being greater than or equal to a predetermined threshold value.

[0095] At least a portion of the fluid entering inner catheter lumen 20 through the at least one sidewall opening 24 may contact a surface of the thrombus. This continuous flow of fluid on the thrombus may cause loose particles to be removed from the surface of the thrombus. For example, the continuous flow of fluid may be relatively turbulent, such that the flow of fluid may exert an impacting force on the thrombus. Additionally, a suction from inner catheter lumen 20 may draw fluid from the surface of the thrombus and remove the fluid through inner catheter lumen 20.

[0096] In some examples, a clinician operating aspiration system 2 may adjust aspiration catheter system 10 to a second predetermined position corresponding to a different configuration of the plurality of sidewall openings 24 outside outer catheter lumen 16 (e.g., distal of distal opening 18) and within outer catheter lumen 16 (e.g.,