CLAIMS

1. A shaft for a suction and irrigation apparatus, the shaft ~~An apparatus for providing suction and irrigation to a body site, the apparatus~~ including

~~a. a shaft having:~~

~~b.~~a. a distal end for juxtaposition with the body site;

~~c.~~b. a flow area restriction portion located proximate the distal end~~,~~ ~~-~~ the flow area restriction portion being slightly offset from the distal end, and being formed such that the flow area restriction portion has a constant cross-section along a substantial length of the flow area restriction portion; wherein the constant cross section is less than a cross section of any other part of the shaft ~~includes an integral neck portion of the shaft, the neck portion providing a narrowed cross-section flow area~~; and,

~~d.~~c. one or more apertures located in a cylindrical side wall of the shaft, the one or more apertures being located between the flow area restriction portion and the distal end such that the one or more apertures are adjacent ~~the neck portion~~to the flow area restriction portion; and

~~an actuating mechanism operatively configured to facilitate selective actuation of the apparatus to provide either suction function or irrigation function via the shaft,~~

wherein the flow area restriction portion ~~provides a reduction in flow area proximate the distal end of the shaft~~has a length which is less than half a total length of the shaft.

~~2. An apparatus according to claim 1, wherein the flow area restriction portion provides a section of constant reduced cross-sectional flow area proximate the distal end of the shaft.~~

~~3.~~2. ~~An apparatus according to claim 1 or 2~~The shaft according to claim 1, wherein the flow area restriction portion includes an insert located inside the shaft, the insert having a cross-sectional flow area smaller than that of the shaft.

~~4.~~3. The ~~apparatus of claim 3~~shaft of claim 2, wherein a space is defined between a side wall of the shaft and a side wall of the insert.

~~5.~~4. The ~~apparatus~~ shaft of any one of claims 1 to ~~4~~3, wherein the ~~side wall of the shaft~~one or more apertures are define~~d~~s as two rows of apertures proximate the distal end.

5. The ~~apparatus of claim 5~~shaft of any one of claims 1 to 3, wherein the one or more apertures are defined as eight evenly spaced-apart apertures ~~are provided~~ proximate the distal end of the shaft.

6. The shaft of any one of the preceding claims, wherein the length of the flow restriction portion is less than 20% of the total length of the shaft.

7. The shaft of any one of the preceding claims wherein the length of the flow restriction portion is in the range of 3-5% of the total length of the shaft.

8. An apparatus for providing suction and irrigation to a body site, the apparatus including:

a. the shaft according to any one of the preceding claims; and,

b. an actuating mechanism operatively configured to facilitate selective actuation of the apparatus to provide either suction or irrigation via the shaft;

~~6.~~ wherein the flow area restriction portion is operative for a suction function and an irrigation function.

~~7.~~9. ~~An apparatus according to any one of the preceding claims~~The apparatus according to claim 8, wherein the apparatus includes a body, the body including a first terminal for mounting the shaft, and the apparatus further includes an adaptor for mounting two or more conduits to the first terminal, at least one of the two or more conduit~~s~~ ~~being~~ is an irrigation conduit for delivering irrigation

fluid to the first terminal, and at least one of the two or more conduits ~~being~~ is a suction conduit for providing a negative pressure at the terminal.

~~8.~~10. The apparatus of claim ~~7~~9, wherein the adaptor provides fluid communication between the shaft and the irrigation conduit, as well as the shaft and the suction conduit, when the shaft is mounted to the terminal.

~~9.~~11. The apparatus of claim ~~7~~9 or 10, wherein the body has ~~two~~ a second terminal~~s~~ for selectively receiving a proximal end of the shaft, the apparatus further including an internal conduit for connecting, and providing fluid communication between the ~~two terminals~~first terminal and the second terminal, one end of the internal conduit being mounted to the adaptor for fluid communication with the suction conduit and the irrigation conduit.

~~10.~~12. The apparatus of claim ~~9~~11, wherein the ~~two terminals~~first terminal and the second terminal are disposed generally perpendicularly to one another.

~~11.~~13. ~~An~~ The apparatus according to any one of claims ~~7 to 10~~9 to 12, wherein the actuating mechanism is used to selectively open or close the suction conduit or irrigation conduit so as to provide either suction or irrigation functions via the shaft.

~~12.~~14. The apparatus of claim ~~11~~13, wherein the actuating mechanism includes a suction button for actuating the suction function~~s~~ of the apparatus, and an irrigation button for actuating the irrigation function~~s~~ of the apparatus, and wherein

a. depression of the suction button causes the suction conduit to be opened and irrigation conduit to be closed, and

b. depression of the irrigation button causes the irrigation conduit to be opened and suction conduit to be closed.

~~13.~~15. The apparatus of claim ~~12~~14, wherein the actuating mechanism allows the degree and pressure of suction and irrigation to be controlled by controlling

the degree of depression of each of the suction and depression buttons respectively.

~~14.~~ The apparatus of claim ~~12 or 13~~15, wherein each button is spring loaded and biased towards a fully extended position.

16.

17. The apparatus of claim ~~14~~16, wherein, in the fully extended position, a protrusion associated with each button in combination with internal projections of the body compresses a corresponding conduit into a closed condition, such that when both the suction and irrigation buttons are released and biased in the fully extended positions, both the suction and irrigation conduits are clamped closed~~.~~.

~~15.~~

~~16. The apparatus of any one of claims 1 to 15, wherein when the apparatus is in the irrigation function, irrigation fluid increases in velocity, allowing irrigation fluid to exit the shaft in a focused and controlled manner.~~

~~17.~~ The apparatus any one of claims ~~1 to 16~~8 to 17, wherein, when the apparatus is in the suction function, suction rate is preserved.

18. ~~A shaft for a suction and irrigation apparatus, the shaft, being the shaft of claim 1.~~