Letter to the Editor

Comments on “Injection Lipolysis With Phosphatidylcholine and Deoxycholate”

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In a previous letter to the editor, Hasengschwandtner and Gundermann1 raised the question of sodium deoxycholate’s (DC) unselective action when injected subcutaneously during nonsurgical, localized fat reduction, to support their theory that phosphatidylcholine (PC) provides an indispensable adjunct to reduce DC toxicity. Although DC’s efficacy on cell lysis has been scientifically2–3 and clinically4–5 proven, its unselective action5–8 has been widely debated. When assessed at various DC:PC ratios, PC demonstrates antilipolytic action,9 with the ability to reduce DC’s aggressiveness (Figure 1) (A. Rotunda, personal communication, 2006).

Hasengschwandtner and Gundermann,1 in extensive clinical studies, tested a fixed DC:PC ratio compound with high DC concentration for direct lytic action on fat cells—and therefore requiring the attenuant PC—thus their hypothesis that PC comprises an essential part of the active mix. While we agree with most of the authors’ findings, herein we describe what we believe is a more effective injection treatment. We have found it more feasible to reduce DC aggressiveness and increase fat cell selectivity by combining an appropriate solution and injection technique.

Aqualyx (Ghimas Spa, Casalecchio di Reno, Italy), also known as Motolese’s solution, is an aqueous microgelatinous solution containing a polymer of 3:6-anhydro-l-galactose and D-galactose, buffer systems, 3α,12α-dihydroxy-5β-24-oico cholic acid sodium salt, and saline solution.10 Sold exclusively to trained, licensed physicians, Aqualyx has been approved for treatment in more than 50 countries. It is fully CE certified for medical treatment in Europe, where it has been in clinical use since 2009 for nonsurgical reduction of localized adiposity, lipohypertrophy, and subcutaneous lipohyperplasia; it has also been used to treat “buffalo hump” in patients with human immunodeficiency virus.11 Aqualyx meets very high standards for safety and, moreover, does not contain PC. Given its microgelatinous delivery system, which contains buffering agents and a low concentration of active detergent, this solution has successfully reduced the aggressiveness of DC.

Intralipotherapy, an injection technique, has been developed for application with Aqualyx. With this technique, needles (or cannulae) of 10 to 15 cm in length are inserted into subcutaneous fat, parallel to the skin surface, ensuring avoidance of contact with both the dermis and muscle. This technique not only allows for more uniform distribution to and better selectivity of target tissue but also almost completely eliminates the risk of nodular reaction, a common complication of the vertical injection technique employed by Hasengschwandtner and Gundermann.1 Moreover, Aqualyx’s microgelatinous delivery system helps reduce the spread of solution to surrounding tissues. Postinjection edematous reactions may occur, such as small superficial

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bruises or light-to-moderate cutaneous erythema; however, these minor side effects are considered normal for this treatment type and generally resolve within 3 to 5 days. To date, no major side effects—such as skin necrosis or infection—have been reported to occur with either this solution or the injection technique.

Until an injectable treatment 100% selective for adipocytes is discovered, Aqualyx and its intralipotherapy injection technique can offer selective fat-tissue removal without intradermal or intramuscular dispersion.

**Disclosures**

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**REFERENCES**