Pharmacology of Clonidine

To the Editor—The case report by Burney describes clonidine as a "centrally acting α blocker" and guanfacine as "a drug related to clonidine." Though later in the text this description is clarified somewhat by reference to guanfacine as "an α2 adrenergic agonist with pharmacologic properties similar to those of clonidine," this does not clarify the error in the original sentence.

As reviewed by Berthelsen and Pettinger, clonidine is both a central and a peripheral acting α2 agonist at clinically relevant concentrations. At both sites this agonist property is exerted at pre- and postsynaptic sites.

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References


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In Reply—Jones is quite correct that pharmacologically, clonidine and guanfacine are central α2 agonists. Clonidine was originally developed as vasconstrictor nose drops, and intravenous administration results in a transient rise in blood pressure. Their clinical usefulness as antihypertensive drugs rests on actions in the central nervous system that produce a decrease in sympathetic tone and a slowing of the pulse. Interestingly, these effects can be blocked by α blockers such as phentolamine. It is easy to think of a drug that acts in the brain to reduce sympathetic tone as a "centrally acting α blocker." However, this is not correct, and I regret any confusion created by this imprecise terminology.

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Reference


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Preoperative Epidural Fentanyl, Neuroplasticity, and Postoperative Pain

To the Editor—Recently Katz et al., in a study of patients undergoing thoracotomy, demonstrated that a significantly lower pain score at 6 h but not at 2, 4, 12, 24, and 48 h postoperatively and a significantly reduced morphine consumption at 12–24 h but not at 0–2, 2–4, 4–6, 6–12, and 24–48 h postoperatively was achieved by giving preemptive epidural fentanyl compared with the same fentanyl dose administered 15 min after skin incision. They conclude that these results suggest preemptive analgesia to reduce central...