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Feasibility and effectiveness of early use of anti-obesity medications (AOM) to treat severe adolescent obesity in addition to a lifestyle modification program (LMP) - Live Light Live Right.

Anti-obesity medications (AOM) usage in adolescent weight management was recently implemented due to the latency of its FDA acceptance and limited insurance coverage. The AAP recommends immediate intensive health behavior and lifestyle treatment for children with obesity. Pharmacologic interventions and metabolic surgery are indicated for severe obesity.

Aim: Our study assessed the feasibility/effectiveness of early AOM use alongside the Live Light Live Right lifestyle modification program (LMP). Medical records of patients prescribed AOM [metformin, phentermine, topiramate (alone or in combination), semaglutide (Ozempic), and Zepbound] were reviewed. Pre-AOM weights were compared to the most recent visit weight. Short- and medium-term weight loss was assessed by pre/post weight loss percentages. Most medications lacked insurance approval, requiring patients to self-pay via discount coupons or nonprofit pharmacies.

Results: The study included 135 patients (45.2% male, 54.8% female), mean age 16.72 years (range 5-31), and mean BMI 40.06 kg/m², with a follow-up of 16.01 months (range 1-53). Medications used: Metformin 88 (65.1%), Ozempic 12 (8.9%), Topiramate 75 (55.55%), Phentermine 72 (53.33%), Wegovy 6 (4.44%), in isolation or combinations. Of the cohort, 99 (73.33%) lost weight, while 36 (26.7%) did not lose or gained weight. Weight loss distribution: 31% lost 0-5%, 24% lost 5-10%, 17% lost 11-15%, 8% lost 16-20%, and 19% lost >20%, with 44% losing >10% from baseline. The average weight change was -8.86% (range 1%-77%).

Conclusion: Our study demonstrates AOM as an effective adjunctive intervention for severe obesity in underserved inner-city youth even without insurance. Reported side effects were minimal, but adherence, compliance, and cost were significant barriers. Response to similar medications varied. Long-term treatment and monitoring are needed to determine the biological and social factors influencing successful weight loss.