Sequential Ugi/Palladium-Catalyzed Aerobic Oxidative Cyclization: novel TetrahydroIndeno[1,2-b]Pyrrolidines Synthesis.

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The general strategy of combining multicomponent reaction with post-condensation reactions has been successfully used to prepare a wide variety of drug-like heterocycles. This communication discloses a novel synthesis of TetrahydroIndeno[1,2-b]Pyrrolidines by a two step Ugi multicomponent reaction/Palladium oxidative cyclization sequence. As usual Ugi adducts were obtained in good to high yields and palladium oxidative conditions afforded the cyclized products in moderate yield. Five new TetrahydroIndeno[1,2-b]Pyrrolidines were synthetized using two powerful reactions in which 6 new chemical bonds where formed.



 R^1 = H, *p*-Cl, *p*-NO₂ R^2 = *o*-NO₂, *p*-NO₂, *o*-F R^3 = *tert*-Butyl, Cyclohexyl