Melanoma with regression is seen in 10-35% of cutaneous melanomas. We retrospectively reviewed our experience with these unusual melanomas. Between the ten year period from January 1999-January 2010, 192 patients (aged 23-89) presented with primary melanomas of which 11 (6%) had evidence of regression. The median age was 54 (range of 38-78) with 6 males and 5 females. Primary location was truncal in 7 patients (64%), extremity in 3 patients (27%), and head and neck in 1 patient (9%). The median Breslow depth was 0.87 mm. (range 0.37-1.8) and the median Clark's level was 3 (range 2-4), only 3 patients had tumors >1.0mm. Ulceration was present in 1/11, no angiolymphatic involvement was identified, and 8/11 had minimal to no mitotic figures. Eight patients underwent sentinel node biopsy and 1/8 (12.5%) was positive and the only node positive on completion dissection. Median followup was 17 months (range 5-103 months) with no recurrence and no melanoma related deaths. Regression in primary melanomas is rare with only 6% of our melanoma patients. A relatively high number of these patients 2/11 (18%) presented with nodal metastasis even though these patients’ primary were <1mm in depth. Neither of these patients’ primary exhibited poor prognostic factors such as ulceration, angiolymphatic invasion or a high mitotic index. Thorough clinical evaluation and sentinel lymph node biopsy should be considered in patients with evidence of regression of their primary to detect lymphatic metastasis and institute appropriate therapy to improve survival.