Histological regression in primary cutaneous melanoma occurs in 10-35% of cases. Although a large body of literature exists to suggest that histological regression serves very little purpose in predicting biologic behaviour with melanoma, recognizing the presence of regression at clinical and histological ground may still retain some value in grading melanoma aggressiveness. In the current review, a comprehensive overview of the main aspects of regression will be provided. Histologically, many classifications have been reported so far, but all of them only agreed on the presence of an infiltrate of lymphocytes admixed with pigment-laden macrophages underlying an atrophic epidermis with flattened rete ridges. Upon dermoscopy, regression is also named Blue White Scar-like areas and could be variably admixed with granularity or peppering. Almost fully regressed lesions represent a main diagnostic issue in dermoscopy, and thus, confocal microscopy can be of help to identify whether the tumour is melanocytic or not. The clinical utility of regression as a prognostic factor has been challenged recently. Nowadays, evidences showed that it is less likely associated to SLN metastases. © 2016 European Academy of Dermatology and Venereology. PMID:27401335 DOI:10.1111/jdv.13815