OBJECTIVE: Speech outcome after primary management of cleft lip and palate may be affected by timing of primary palatoplasty. The objective of this study was to compare speech nasality outcome between early and late primary repair of cleft palate. METHODS: A group of 431 patients, 257 males and 174 females, were randomly assigned to two different surgical procedures for primary repair of cleft palate: 212 received primary palatoplasty between 9 and 12 months of age (early group: E) while 219 primary palatoplasty between 15 and 18 months of age (late group: L). Speech outcome was documented live by speech pathologists and also by judges who rated speech samples recorded during production of phrases with high and low pressure oral sounds. Nasalance scores were also obtained. RESULTS: When considering the live assessment: cul-de-sac testing revealed that 21% of patients in the E group were hypernasal compared to 24% in the L group; for the 2-point scale, 22% was hypernasal in E group and 24% in L group. For the high pressure samples: nasalance scores revealed that 50% was considered hypernasal in E group compared to 53% in L group while listeners ratings indicated 39% in E group compared to 42% in L group. For the low pressure samples: nasalance scores revealed that 49% was considered hypernasal in E group compared to 52% in L group while listeners ratings indicated 33% in E group compared to 36% in L group. CONCLUSION: Speech outcome for both the high pressure and low pressure samples were slightly better for the group that received primary palatoplasty between 9 and 12 months compared to those who were operated between 15 and 18 months of age.