

## Specificities of STEMI in young adults: Monocentri- DAAOU Wissem-, CHU Beni Messous, Algeria

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Myocardial infarction in young adults is a significant problem because there is no clear definition of premature coronary artery disease, which is most commonly reported before the age of 40–50 years. This can lead to an underestimation of the significant differences that exist between young patients compared to an older cohort. Traditional differences described in the risk profile of younger myocardial infarction compared to older patients. There is no specific codified management. The short-term prognosis is better, but contemporary data raise concerns about long-term outcomes.

It is a prospective, monocentric study aimed at enumerating the different characteristics of STEMI in young adults under the age of 45; identify risk factors, angiographic results and prognosis in 30 young adults hospitalized for STEMI in the cardiology department of CHU Béni Messous during the period from October 2018 to October 2019.

This study suggested that young adults with STEMI have unique characteristics in terms of risk profile, pathophysiological mechanisms, clinical presentation, angiographic results, and prognosis. In this study, the incidence of male patients predominated with a prevalence of 90%, a prevalence between 79 and 95% according to the previous series. The family history of coronary heart disease was established as an independent risk factor present in 16% of our patients, Chan et al. showed a higher prevalence of STEMI in young people with a family history of CAD and who reported an OR of 2.98 (95% CI, 2.26 to 3.94). Zimmerman et al. reported the same results.

In addition, smoking was found to be more common in young STEMI survivors with a percentage of 73%. Depending on the series, the prevalence of smoking

varies from 51% to 89%, in France the rate is 77%. Hypertension and diabetes were less common in younger people compared to their older counterparts. According to previous studies, diabetes was found in 15% of cases and hypertension in 35% of cases.

In addition, an examination of the angiographic characteristics showed that the majority of young adults presented with a monotonular disease, the culprit artery was IVA in 43% of cases, 16% Cx and 15% CD. According to Zimmerman et al. when the arteries are pathological, it most often involves mono-truncated involvement with preferential involvement of the anterior ventricular. The presence of tri-trunk lesion is reported in less than 10% of cases according to the study by Fournier et al. The achievement of the common core is exceptional.

### Conclusion:

The incidence of STEMI in young people is not negligible. Active smoking remains the major risk factor and justifies continuing prevention campaigns. Coronary involvement is not very widespread. There is no specificity regarding the therapeutic management of these patients during hospitalization. Finally, if short and medium term prognosis is excellent, this is not the case in the long term, especially in cases of LV dysfunction.