

PTSMA

Percutaneous transluminal septal myocardial ablation

It is a procedure in which the septal branch of the ACS (*arteria coronaria sinistra*, left coronary artery) is closed (embolized) using alcohol.

It is performed using an inserted catheter, similar to PCI, utilizing a radial or femoral approach (more preferred in PTSMA).

The alcohol-containing balloon is inserted through the ACS into the septal branch. When the balloon inflates, the alcohol solution is released. This leads to the stopping of blood flow: the artery is artificially embolized. Afterward, the guide wire is pulled out.

Indication

- **Hypertrophic cardiomyopathy:** The procedure is performed when other treatments fail and the symptoms are more severe.

Complications

1. **Cardiac conduction system failure may occur:** AV Block - the septum atrophies during embolization and may damage the AV node. Pacemaker implantation is required to treat this.
2. **Myocardial infarction** can occur if the alcohol enters another coronary artery such as the RIA (*ramus interventricularis anterior*), leading to its embolization.
3. **Cardiac arrest** - especially in elderly patients.

Prognosis

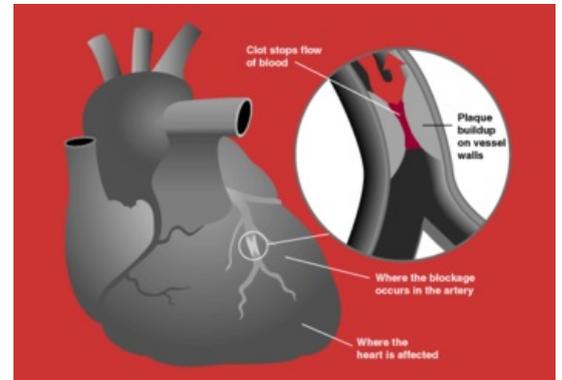
After a successful procedure, we can expect septal atrophy, which can be observed using ECG (septal STEMI, in this case it is to be expected!!). Beware of an anterior STEMI, which indicates a possible complication (i.e., a possible embolization of another branch of the ACS).

In some cases, the septum does not undergo atrophy, remaining hypertrophic. In such cases, a septal myectomy is performed.

Links

Related Articles

- Electrocardiography
- Cardiac conduction system



Myocardial infarction - diagram