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| **Name:** |
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| **Group:** |
| 6A-3 |
| **Basic Science Question:** |
| What are calcium channel blockers? |
| **Report:** |
| Calcium plays an important role in muscle contraction. When a nerve impulse reaches neuromuscular junction on a muscle cell it causes ACH to be released from the axon to the receptors on the sarcolemma.  This results in depolarization allowing sodium Ions into the muscle cell which will cause depolarization.  Depolarization will open calcium volted channels which will trigger the release of Calcium from the Sarcoplasmic reticulum. Increased calcium levels bind to troponin which removes tropomyosin from actin. Myosin binds with actin to begin the contraction.  Calcium channel blockers are used relax muscles or blood vessels with the aim of decreasing blood pressure. They bind to calcium volted channels to prevent the movement of extracellular calcium inside the cell. This will prevent the release of further Calcium from sarcoplasmic reticulum.  Thus, because calcium stimulates muscle contraction, the more calcium available, the more the blood vessels narrow. The less calcium available, means the blood vessels are more relaxed. |
| **References:** |
| 1. McKeever, R. (2020, July 10). Calcium Channel Blockers. Retrieved September 26, 2020, from <https://www.ncbi.nlm.nih.gov/books/NBK482473> 2. Alahamd, Y., Swehli, H., Rahhal, A., Sardar, S., Elhassan, M., Alsamel, S., & Ibrahim, O. (2020, May 13). Calcium Channel Blockers. Retrieved September 26, 2020, from https://www.intechopen.com/books/new-insight-into-cerebrovascular-diseases-an-updated-comprehensive-review/calcium-channel-blockers |