**Subject:** ECG-method of analysis: tracing technique and scoring plan. Signs of atrium and ventricle hypertrophy.

Table 1.General information

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| --- | --- | --- |
| 1 | School | Astrakhan SMU |
| 2 | Speciality | General medicine |
| 3 | Discipline | [Propaedeutics of Internal Diseases](https://www.multitran.com/m.exe?s=Propaedeutics+of+Internal+Diseases&l1=1&l2=2) |
| 4 | Author of the tasks | V.V. Antonyan, E.A. Uklistaya, A.V. Dedov,  А.А.Panov, N.V.Kamneva, S.G. Kasatkina |
| 5 | Tel. number | 89033484838 |
| 6 | E-mail | antonian.vika@yandex.ru |
| 7 | SNILS | - |

Table 2.List of tasks in the discipline

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| --- | --- | --- |
| **Type** | **Code** | **Text of a job function title /a question of the task/possible answers** |
| Ф |  |  |
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| В | 001 | P-mitrale is characterized by: |
| О | А | widening of waves P more than 0,1 s and their " double hump " in the I and II leads |
| О | B | inversion of waves P |
| О | C | widening of waves P more than 0,1 s and their " double hump " in the II, III and aVF leads |
| О | D | increasing of the waves P amplitude more than 2,5 mm in the I and II leads |
| О | E | increasing of the waves P amplitude more than 2,5 mm in the II, III and aVF leads |
|  |  |  |
| В | 002 | P-pulmonale is characterized by: |
| О | А | increasing of the waves P amplitude more than 2,5 mm in the II, III and aVF leads |
| О | B | inversion of the waves P |
| О | C | widening of the waves P more than 0,1 s and their " double hump" in the I and II leads |
| О | D | widening of the waves P more than 0,1 and their " double hump " in the II, III and aVF leads |
| О | E | increasing of the waves P amplitude more than P more than 2,5 мм in the I and II leads |
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| В | 003 | Normally wave P length in the II lead is: |
| О | А | not more than 0,1 s |
| О | B | not less than 0,2 s |
| О | C | more than 0,1 s |
| О | D | less than 0,01 s |
| О | E | more than 0,2 s |
|  |  |  |
| В | 004 | Normally PQ-interval length in the II lead is: |
| О | А | not less than 0,12 s, but not more than 0,2 s |
| О | B | less than 0,02 s |
| О | C | more than 0,2 s |
| О | D | not less than0,02 s, but not more than 0,12 s |
| О | E | not less than 0,22 s |
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| В | 005 | Normally the width of QRS-complexes in the II lead is: |
| О | А | not more than 0,1 s |
| О | B | not less than 0,2 s |
| О | C | more than 0,1 s |
| О | D | less than 0,01 s |
| О | E | more than 0,2 s |
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| В | 006 | Voltage of ECG-waves is considered to be low if the amplitudes’ sum of the waves R in standard leads is: |
| О | А | less 15 mm |
| О | B | less 5 mm |
| О | C | less 20 mm |
| О | D | less 25 mm |
| О | E | less 35 mm |
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| В | 007 | To count heart rate basing on ECG in the terms of irregular rhythm it is necessary: |
| О | А | to determine an average duration of RR in mm among 5 serial cardiocycles , convert it into seconds and then 60 seconds divide by the received value |
| О | B | 60 seconds divide by the duration of RR, measured in mm |
| О | C | 60 seconds divide by the duration of RR, converted into seconds |
| О | D | to determine an average duration of RR in mm among 5 serial cardiocycles, and then 60 seconds divide by the received value |
| О | E | to determine an average duration of QRST in mm among 5 serial complexes, convert it into seconds and the 60 seconds divide by the received value |
|  |  |  |
| В | 008 | To count heart rate basing on ECG in the terms of regular rhythm it is necessary: |
| О | А | 60 seconds divide by the duration of RR, converted into seconds |
| О | B | 60 seconds divide by the duration of RR, measured in mm |
| О | C | to determine an average duration of RR in mm among 5 serial cardiocycles, and then 60 seconds divide by the received value |
| О | D | to determine an average duration of RR in mm among 5 serial cardiocycles, convert it into seconds and then 60 seconds divide by the received value |
| О | E | 60 seconds divide by the duration of QRST, converted into seconds |
|  |  |  |
| В | 009 | What statement, relating to the waves of ventricular complex, is wrong: |
| О | А | normally wave S should be registered in all the ECG-leads |
| О | B | wave R is always hire than isoline |
| О | C | normally wave R may absent only in the leads V1 and aVR |
| О | D | wave S is registered after positive wave of the ventricular complex |
| О | E | wave S is always lower than isoline |
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| В | 010 | Normal wave Q has the following characteristics, except: |
| О | А | has an amplitude not less than 1/4 of the wave R following it |
| О | B | less 0,03 s of width |
| О | C | precedes the first positive wave of the ventricular complex |
| О | D | located lower than isoline |
| О | E | may absent in a number of ECG-leads |
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| В | 011 | Normal process of repolarization is characterized by: |
| О | А | absence of the deviation of ST- segment from the isoline by more than 1 mm and positive asymmetric waves T |
| О | B | depression ST –segment more than 1 mm from the isoline and positive asymmetric waves T |
| О | C | elevation of ST-segment more than 1 mm from the isoline and positive asymmetric waves T |
| О | D | absence of the deviation of ST-segment from the isoline more than 1 mm and positive symmetric sharpened waves T |
| О | E | absence of the deviation of ST-segment from the isoline more than 1 mm and negative waves T |
|  |  |  |
| В | 012 | The sign of a regular rhythm is: |
| О | А | equal duration of the intervals RR in all the ECG-leads |
| О | B | equal duration of the intervals PQ(R) in all the ECG-leads |
| О | C | equal width of QRS complexes in all the ECG-leads |
| О | D | the same form of QRS complexes within every ECG-lead |
| О | E | presence of all the waves P in all the ECG-leads |
|  |  |  |
| В | 013 | The sign if sinus rhythm is: |
| О | А | regular registration of the positive waves P before the complexes QRS distinctively identified at least in one ECG-lead, so the intervals PQ(R) are equal |
| О | B | distinctively identified positive waves P in all the ECG-leads |
| О | C | regular appearance of negative waves P in all the ECG-leads, so the intervals PQ(R) are equal |
| О | D | regular registration of the waves P behind the complexes QRS |
| О | E | regular appearance of the waves P in the absence if connection with QRS, so the intervals PP are not equal to RR |
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| В | 014 | All the signs refer to the symptoms of the left ventricular hypertrophy except: |
| О | А | high waves R in the right chest leads |
| О | B | electrical axis deviation to the left |
| О | C | shifting of the transition zone to the right |
| О | D | deep waves S in the right chest leads |
| О | E | increasing of the amplitude of the waves R from V4 to V6 |
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| В | 015 | The symptoms of the right ventricular hypertrophy are all the signs except: |
| О | А | increasing of the amplitude of the waves R from V4 to V6 |
| О | B | electrical axis deviation to the right |
| О | C | shifting of the transition zone to the left |
| О | D | high waves R in the right chest leads |
| О | E | deep waves S in the left chest leads |
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| В | 016 | Electrical axis is deviated to the left if: |
| О | А | RI>RII≥RIII |
| О | B | RII>RI>RIII |
| О | C | RIII>RII≥RI |
| О | D | RV1>RV2≥RV3 |
| О | E | RV2>RV1>RV3 |
|  |  |  |
| В | 017 | Electrical axis is deviated to the right if:: |
| О | А | RIII>RII≥RI |
| О | B | RI>RII≥RIII |
| О | C | RII>RI>RIII |
| О | D | RV1>RV2≥RV3 |
| О | E | RV2>RV1>RV3 |
|  |  |  |
| В | 018 | Electrical axis is located normally, if: |
| О | А | RII>RI>RIII |
| О | B | RI>RII≥RIII |
| О | C | RIII>RII≥RI |
| О | D | RV1>RV2≥RV3 |
| О | E | RV2>RV1>RV3 |
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