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ASSESSMENTS OF MEDICAL INVESTIGATIONS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Chronic obstructive pulmonary disease is a current disorder which must be competently investigated in order to establish a correct diagnosis as well as to provide the appropriate medications. Once the patient was positive diagnosed with chronic obstructive pulmonary disease, the follow-up procedure requires regular monitoring by periodical checks in specialized medical institutions. Providing an appropriate treatment to patients with chronic obstructive pulmonary disease and following up their health's status, contribute to the increasing of their life's quality, knowing the fact that the advanced stage of chronic obstructive pulmonary disease, in terms of seriousness of the disease, affects the proper conduct of daily activities of the concerned patient.

Key words: chronic obstructive pulmonary disease, respiratory function, chest X-rays, specific changes, risk factors

The incidence of chronic obstructive pulmonary disease (COPD) among adults is determined by numerous risk factors and also due to a combination of predisposing factors that may be genetic or acquired. In combination thereof, the symptomatology that leads in time to onset of respiratory disease may occur in childhood with completion at adult age as an occurrence of the pathology as found in COPD [3, 8]. This certain pathology may occur due to lack of implementation of an appropriate treatment or due to lack of an effective management in the treatment of the respiratory disease prior COPD installation [6, 7].

In this context, forms of asthmatic bronchitis were diagnosed at children, allergic bronchial asthma or infectious-allergic bronchial asthma, chronic bronchitis, which by incorrect treatment or lack of treatment application, led at adult patients to the diagnosis of COPD [1, 2].

Once the diseases belonging to COPD was installed, close monitoring of the concerned patient is required [4]. From this point of view, the periodic special pneumologic examination is considered to be highly important [5]. As part of the specialist's consultation are: monitoring of the respiratory function of the patient, routine radiological investigation by standard radiography, and, when appropriate, setting up laboratory control tests of the disease as well as actuating routine medical tests, aiming at the application of the best appropriate treatment scheme which must be regularly controlled and reassessed [9, 10].

MATERIALS AND METHODS

This study aims to investigate the respiratory function at patients diagnosed with COPD. The procedure consists in carrying out of a

spirometry with and without test by using betamimetics, depending on the severity of the disease. The curve of the spirogram functionally characterizes COPD. However, standard Chest X-rays show COPD specific changes, which are characterized by aspects of fibrosis, more or less bilateral pulmonary extended. Certainly, the radiologic appearance is in accordance with the staging of COPD, with the severity of the changes in the spirogram curve, respectively. In this study, the exploring of the respiratory functions was done with and without betamimetics test using Salbutamol. This study involved the investigation of a group of 8 patients diagnosed with COPD, women and men aged over 40 years, living in urban areas. The monitoring of the respiratory functions was done using Spirolab III spirometer model and the radiological investigation was done using Swiss-ray DDR. The results are shown in the images below as being eloquent for the diagnosis and staging of COPD.

RESULTS AND DISCUSSIONS

According to the results of the investigation of the respiratory functions, we can have some judgments on the seriousness of COPD. To illustrate more closely the type of obstruction in COPD, some spirometers made after testing by using salbutamol, will be presented as follows.

The context is illustrated in figure 1 showing a spirogram with subtotal obstructive syndrome and in figure 2 is presented a spirogram showing obstructive-restrictive or mixed syndrome.

Figure 3 illustrates a spirogram showing obstruction with partial reversibility and figure 4 shows the spirogram corresponding to the obstruction with reversibility. The spirometers were made both at female and male patients.

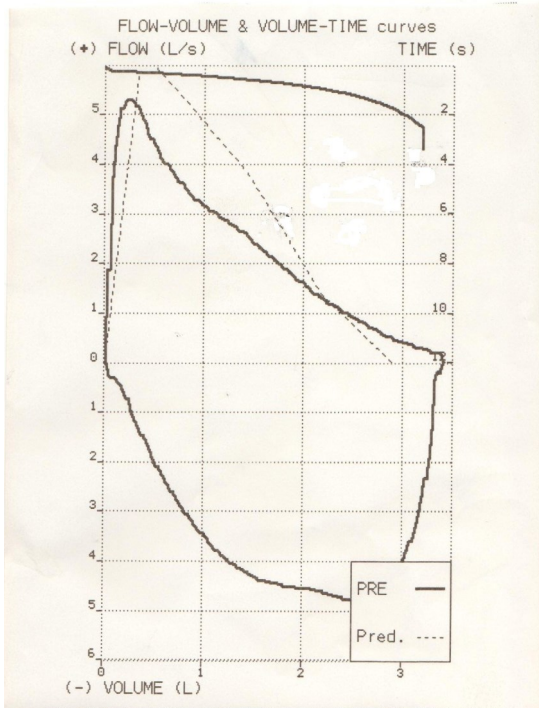


Figure 1 — Spirogram. Subtotal obstructive syndrome

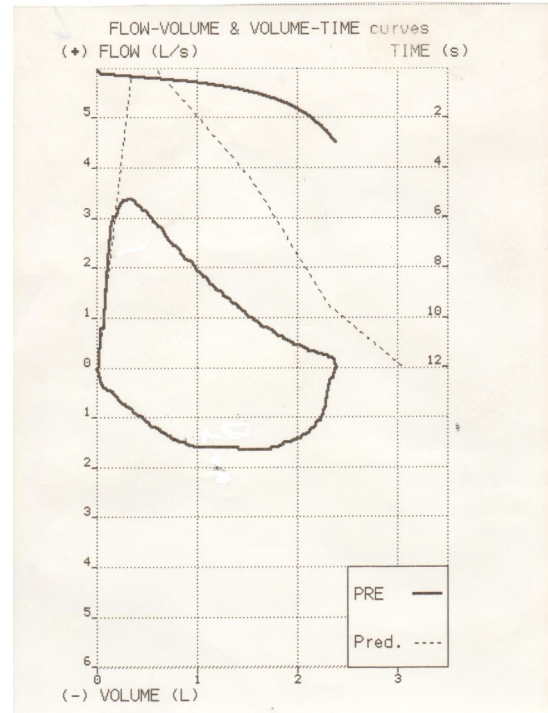


Figure 2 — Spirogram. Obstructive restrictive syndrome

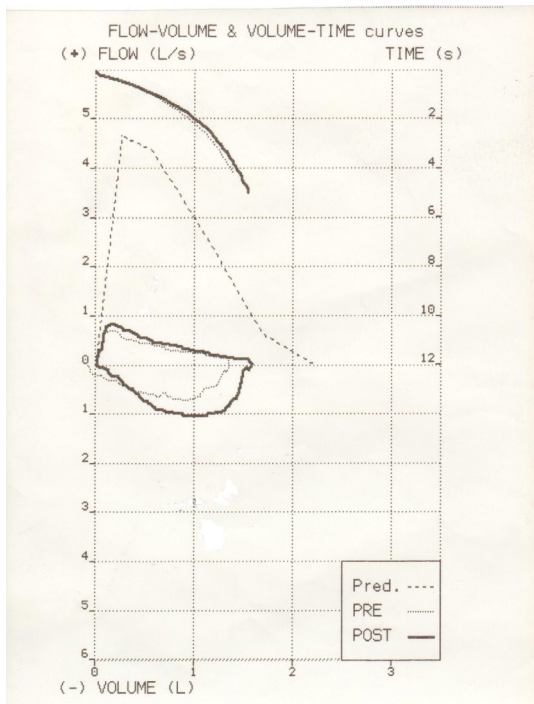


Figure 3 — Spirogram. Obstruction with partial reversibility

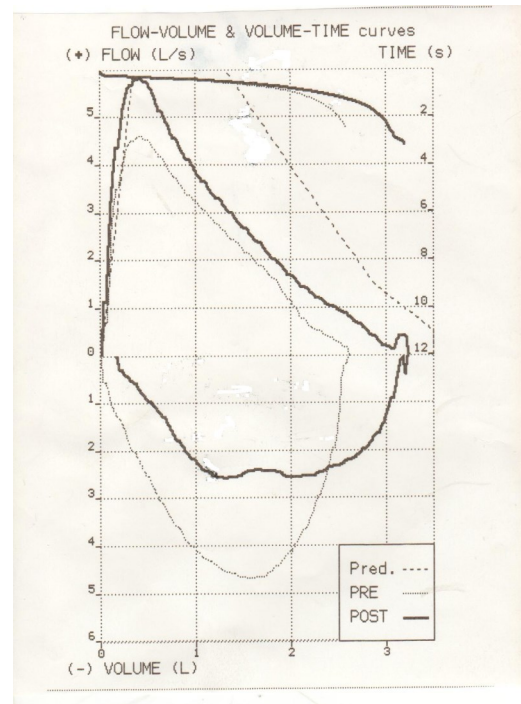


Figure 4 — Spirogram. Obstruction with reversibility

Standard radiographs supplement the investigation of the respiratory functions. They were made at patients from the presented study group. Radiological images show aspects of fibrosis with COPD characteristics, as seen in figures 1-4.

CONCLUSION

COPD is a current disorder which must be competently investigated in order to establish a correct diagnosis as well as to provide the appropriate medications. Once the patient was positive diagnosed with COPD, the follow-up

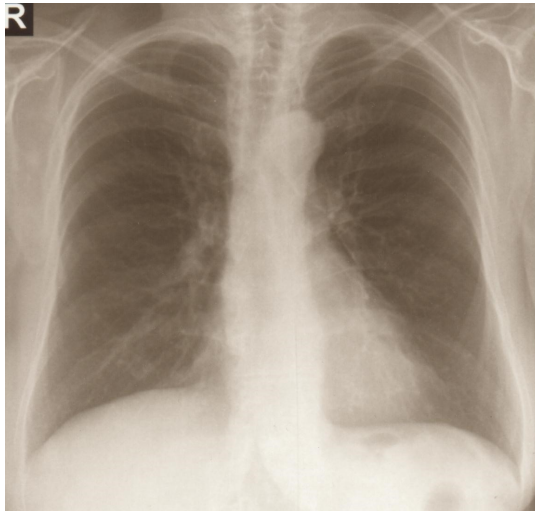


Figure 5 — Chest X-ray. COPD. Female age 67

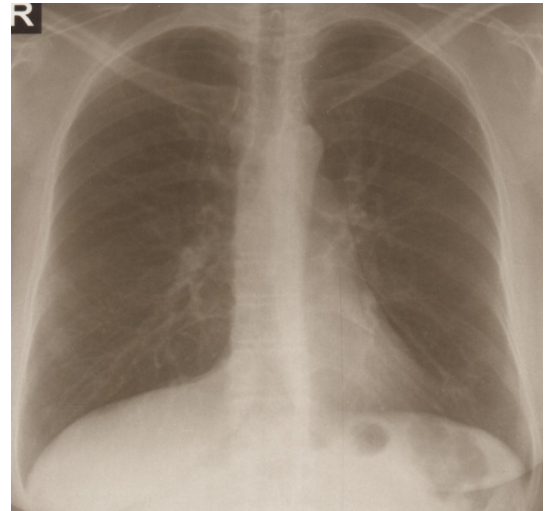


Figure 6 — Chest X-ray. COPD. Female age 52

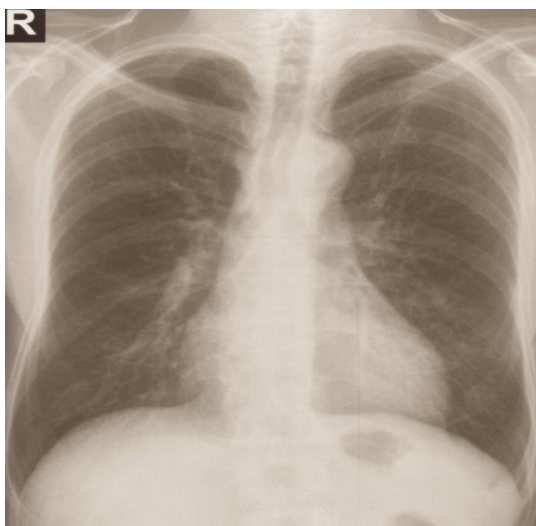


Figure 7 — Chest X-ray. COPD. Male age 57

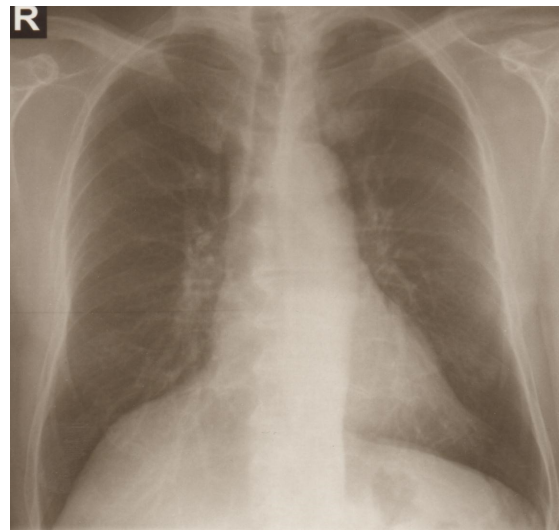


Figure 8 — Chest X-ray. COPD. Male age 74

procedure requires regular monitoring by periodical checks in specialized medical institutions. Providing an appropriate treatment to COPD patients and following up their health's status, contribute to the increasing of their life's quality, knowing the fact that the advanced stage of COPD, in terms of seriousness of the disease, affects the proper conduct of daily activities of the concerned patient.

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ӨКПЕНІҢ СОЗЫЛМАЛЫ ОБСТРУКТИВТІ СЫРҚАТЫ КЕЗІНДЕГІ МЕДИЦИНАЛЫҚ ЗЕРТТЕУЛЕРДІҢ БАҒАМЫ

Өкпенің созылмалы обструктивті ауруымен пациенттер дұрыс диагнозды анықтау мен тиісті препараттарды тағайындау мақсатында сауатты тексерілуге тиісті. Егер пациентке өкпенің созылмалы обструктивті ауруы диагнозы қойылса, онда одан әрі тұрақты мониторинг, сол сияқты арнайы медициналық мекемелерде кезең-кезең көрініп тұру талап етіледі. Өкпенің созылмалы обструктивті ауруымен пациенттерді тиісті еммен қамтамасыз ету және олардың денсаулық жағдайын бақылауға алу науқастардың өмір сапасын жақсартуға ықпал етеді, себебі бұл аурудың кезеңіне байланысты пациенттің өмірге белсенділігі әрт.рлі болып келеді.

Кілт сөздер: өкпенің созылмалы обструктивті ауруы, тыныс алу функциясы, кеуде клеткасының рентгенографиясы, спецификалық өзгерістер, қатер факторлары

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ОЦЕНКА МЕДИЦИНСКИХ ИССЛЕДОВАНИЙ ПРИ ХРОНИЧЕСКОЙ ОБСТРУКТИВНОЙ БОЛЕЗНИ ЛЕГКИХ

Пациенты с хронической обструктивной болезнью легких должны быть грамотно обследованы с целью установления правильного диагноза, а также для назначения соответствующих препаратов. Если пациенту был поставлен диагноз хронической обструктивной болезни легких, то в последующем требуется регулярный мониторинг, а также периодические проверки в специализированных медицинских учреждениях. Обеспечение надлежащего лечения для пациентов с хронической обструктивной болезнью легких и отслеживание их состояния здоровья способствует повышению качества жизни, так как в зависимости от стадии заболевания хроническая обструктивная болезнь легких повседневную деятельность пациента.

Ключевые слова: хроническая обструктивная болезнь легких, дыхательная функция, рентгенография грудной клетки, специфические изменения, факторы риска