بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

THE EFFECTS OF DIFFERENT LEVELS OF AUTO-PEEP ON HEMODYNAMICS. CORRELATION WITH LUNG MECHANICS AND GAS EXCHANGE IN MECHANICALLY VENTILATED PATIENTS IN DIFFERENT VENTILATOR SETTINGS.

Thesis

Submitted in Partial Fulfillment of

Master Degree in Critical Care Medicine

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2001

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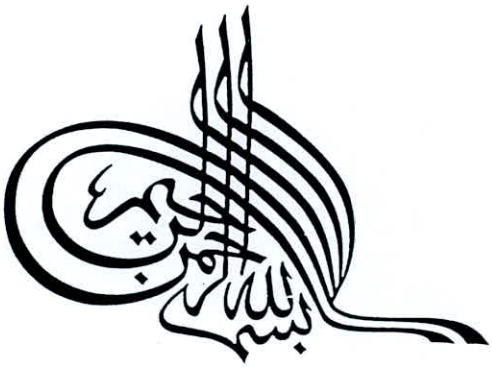

" وعلمك ما لم تكن تعلم، وكان فضل الله عليك عظيما"

صدق الله العظيم

سورة النساء آية ١١٣

جامعة القاهرة / كلية الطب
القسم العيني

محضر

اجتماع لجنة الحكم على الرسالة المقدمة من
الطبيب / ياسر صادق سيد نصار
توطئة للحصول على درجة الماجستير / الدكتوراة
في طب الحالات الحرجة

تحت عنوان : باللغة الانجليزية : The Effects of Different Levels of Auto-PEEP on Hemodynamics. Correlation with Lung Mechanics and Gas Exchange in Mechanically Ventilated Patients on Different Ventilator Settings

: باللغة العربية : تأثير المستويات المختلفة لضغط الإيجابي الداخلي في نهاية الزفير على ديناميكية الدورة الدموية العلاقة مع ميكانيكية الرئة وتبادل الغازات في مرضى أجهزة التهوية الصناعية في ظروف تنفس مختلفة

بناء على موافقة الجامعة بتاريخ / / ١٩ تم تشكيل لجنة الفحص والمناقشة للرسالة المذكورة أعلاه على النحو التالي :-

١) أ.د. [illegible] أستاذ مساعد طب الحالات الحرجة جامعة القاهرة عن المشرفين
٢) أ.د. فوزي عبد العظيم رجب أستاذ مساعد طب الحالات الحرجة جامعة القاهرة متحن داخلي
٣) أ.د. فتحي سيد رضا أستاذ التخدير جامعة الأزهر متحن خارجي

بعد فحص الرسالة بواسطة كل منهم منفردا وكتابة تقارير منفردة لكل منهم انعقدت اللجنة مجتمعة في يوم ——— بتاريخ / / ١٩ بقسم ——— بكلية الطب — جامعة القاهرة وذلك لمناقشة الطالب في جلسة علنية في موضوع الرسالة والنتائج التي توصل إليها وكذلك الأسس العلمية التي قام عليها البحث .

قرار اللجنة : قبول الرسالة شكلاً وموضوعاً حيث أنها استوفت كل المراجع والمادة العلمية وتمس موضوعاً حيوياً هاماً لمرضى الحالات الحرجة على أجهزة التنفس الصناعي

توقيعات أعضاء اللجنة :-

المشرف المتحن — المتحن الداخلي — المتحن الخارجي

(صلم)

ABSTRACT

Auto PEEP and dynamic hyperinflation are well recognized phenomena that have been demonstrated as a common occurrence among patients supported by mechanical ventilation, and its physiological effects remain the same as that of externally applied PEEP, hence its effects on hemodynamics, lung mechanics, and gas exchange.

Our goal was to detect Auto PEEP in mechanically ventilated patients and monitor how its different levels may affect the patient's hemodynamics, lung mechanics and gas exchange.

Another goal was to monitor how the addition of External PEEP may affect the patient's hemodynamics, lung mechanics and gas exchange, and trial of estimating an optimal PEEP level.

We studied 18 mechanically ventilated patients , who were classified into 3 groups : COPD group (10 patients), restrictive group (4 patients) and normal group (4 patients.)

Besides the routine chinical examination, ECG, radiological chest examination, laboratory investigations and ABG, each individual patient was subjected to serial monitoring of hemodynamic parametess (SV, PCWP, LVSW, RVSW, PVR), Lung Mechanics parameters (Auto PEEP, External PEP, Total PEEP, P peak, P mean, p total, Raw, C stat), and gas exchange parameters (PaO_2, Qs/Qt).

This was done for baseline readings, and after every change in ventilatory settings according to the study, on different levels of Auto PEEP and on different levels of External PEEP.

Our results showed : ***Auto PEEP*** was detected in 13 out of 18 patients included in the study (i.e. 72%) with a mean of 6.8cmH2O, SD +-5. showed that on the application of External PEEP, ***Auto PEEP*** had a significantly negative correlation with ***External PEEP*** in all groups.The interaction between baseline Auto PEEP and applied external PEEP is complex. The lower the AutoPEEP level, the higher the increase in Total PEEP in response to the addition of External PEEP. ***SV*** had a significantly negative correlation with both ***Auto PEEP*** (total and group 1) and ***External PEEP*** (group 1).Also ***RVSW*** and ***LVSW*** had a significantly negative correlation with ***Auto PEEP*** (group 1) but a non significant correlation with ***External PEEP*** (all groups). On the other hand, ***MPAP and PCWP*** had a significantly positive correlation with ***Auto PEEP*** (Total + group 3). ***PCWP*** had a significantly positive correlation (group1) while ***MPAP*** didn't with ***External PEEP***. ***PVR*** didn't have a significant correlation with either ***Auto PEEP*** or ***External PEEP*** is any group. ***Mean Paw, Peak Paw and Plat Paw*** had a significantly positive correlation with both ***Auto PEEP*** (Total ,group 1) and ***External PEEP*** (all groups, group 3 only with Plat paw). ***Raw*** had a significantly positive correlation with ***Auto PEEP*** (Total) but didn't have a significant correlation with ***External PEEP*** in any group. **Cstat** didn't have a significant Correlation with either ***Auto PEEP*** or ***External PEEP*** is any group. ***PaO_2*** had a significantly positive correlation with ***External PEEP*** (Total and groups 3) but didn't have a significant correlation with ***Auto PEEP*** in any group. ***Qs/Qt*** had a significantly negative correlation with both ***Auto PEEP*** (Total, group 1 and 3) and ***External PEEP*** (Total and group 3). optimal PEEP levels as a mean value were variable according to the patients groups, and the method of its application, either as an Auto PEEP or as an applied External PEEP.

Key words: Auto , PEEP , hemodynamics, lung mechanics , gas exchange, mechanical ventilation.

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I hope for them the best and to keep on being the pioneers in their field.

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Yasser Nassar

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