Cartas ao Editor

DOI: 10.5935/1678-9741.20120027

RBCCV 44205-1368

Physiotherapy in cardiac surgery

It is well known that the most common respiratory complications after cardiac surgery are related to the decrease in respiratory function and the presence of atelectasis [1]. Chest physiotherapy is widely indicated to minimize the adverse effects of cardiac surgery and immobilization along the hospital stay, such as vital capacity, functional residual capacity and the presence of atelectasis [2]. Conventional chest physiotherapy includes respiratory exercises and early mobilization of the patient. In the other hand, non-invasive ventilation is more and more used to intense respiratory therapies. However, how aggressive should physiotherapist be in the post-operative period?

The study by Franco et al. [3] is very interesting and adds important information to what we know about respiratory function and physiotherapy after cardiac surgery. This study aimed to assess the influence of conventional physiotherapy and non-invasive ventilation in pulmonary function in patients after cardiac surgery. Patients randomized to conventional physiotherapy performed diaphragmatic breathing exercises in association with mobilization of low and upper limbs, clearance maneuvers, relief of cought and lung reexpansion techniques. Patients randomized to non-invasive ventilation used BiPAP in spontaneous mode for 30 minutes twice a day with inspiratory and expiratory pressures of 8-12 cmH_2O and 6 cmH_2O, respectively. The authors showed that, after 48 hours of cardiac surgery, the patients in the non-invasive ventilation group showed greater respiratory function (tidal volume, vital capacity, expiratory peak flow, maximal inspiratory and expiratory pressures) in comparison to the conventional group. Moreover, respiratory rate, the score of atelectasis, heart rate, systolic and diastolic blood

pressures were lower in non-invasive ventilation group.

However, it would be important to have some data about the incidence of atelectasis, pulmonary complications and lung function along the hospital stay and follow up. Maybe the respiratory function and the incidence of atelectasis are not different along the patient's follow up, considering non-invasive ventilation and conventional physiotherapy. Also, an especial attention must be paid to the survival. This information is very important and could imply in cost and patient's well being [4].

This way, new trials are important to elucidate the best physiotherapy strategy in patients after cardiac surgery and its impact in respiratory function and survival.

Vitor Oliveira Carvalho, Marcelo Biscegli Jatene - Unidade de Cirurgia Cardíaca Pediátrica - Instituto do Coração Hospital das Clínicas da Faculdade de Medicina da USP (InCor HC-FMUSP) - São Paulo, SP, Brazil.

REFERENCES

1. Rumsfeld JS, MaWhinney S, McCarthy M Jr, Shroyer AL, VillaNueva CB, O'Brien M, et al. Health-related quality of life as a predictor of mortality following coronary artery bypass graft surgery. Participants of the Department of Veterans Affairs Cooperative Study Group on Processes, Structures, and Outcomes of Care in Cardiac Surgery. *JAMA*. 1999;281(14):1298-303.

2. Herbst-Rodrigues MV, Carvalho VO, Auler JO Jr, Feltrim MI. PEEP-ZEEP technique: cardiorespiratory repercussions in mechanically ventilated patients submitted to a coronary artery bypass graft surgery. *J Cardiothorac Surg.* 2011;6:108.

3. Franco AM, Torres FCC, Simon ISL, Morales D, Rodrigues AJ. Assessment of noninvasive ventilation with two levels of positive airway pressure in patients after cardiac surgery. *Rev Bras Cir Cardiovasc.* 2011;26(4):582-90.

4. Carvalho VO. Phase 1 cardiovascular rehabilitation: be aggressive? *J Cardiothorac Surg.* 2011;6:140.

Answer

Dear Editor

In response to the letter of Carvalho and Jatene, firstly we would like to thank their interest in our research and their opportune comments. Carvalho and Jatene pointed that some data regarding the incidence of atelectasis, pulmonary complications and lung function along the hospital stay and follow up would be interesting.

In our study [1] none patient have experienced cardiac, renal, infectious or respiratory (besides atelectasis) post-operative complication. Only one patient in the conventional physiotherapy group (control group) had a

minor stroke. There was no hospital mortality; however we do not have follow up data beyond 30 days of hospital discharge. The mean time in the intensive care unit (ICU) was 2.3 days for the control group and 2.2 days for those who received non-invasive ventilation (BIPAP treatment group, *P*=0.442). The hospital stay was 9.3 days for the control group and 7.3 days for the BIPAP group (*P*=0.182).We do not have data regarding respiratory function after ICU discharge, but the evolution of the patients during its post-operative period in the ward was uneventful.

Social factors is the main reason for a post-operative hospital stay longer than the observed in developed countries, or even in Brazilian hospitals located in larger metropolitan areas. Regarding post-operative atelectasis, we did observed a higher incidence of more pronounced atelectasis in the control group, but the differences did not reached statistical significance, certainly due the size of our sample. However we have to consider that a level of significance below 0.5 is a convention, and we have obtained *P*=0.07. Therefore, the results may not have statistical significance, but certainly they have clinical relevance. However, all patients who experienced post-operative atelectasis completely recovered with additional specific respiratory therapy, mainly by means of incentive spirometry and/or intermittent positive pressure breathing through a mouth piece connected to a BirdMark 7®ventilator.

Best regards,

Alfredo J Rodrigues and Aline Franco - Division of Cardiothoracic Surgery - School of Medicine of Ribeirão Preto - University of São Paulo, Ribeirão Preto, SP, Brazil.

REFERENCE

1. Franco AM, Torres FCC, Simon ISL, Morales D, Rodrigues AJ. Assessment of noninvasive ventilation with two levels of positive airway pressure in patients after cardiac surgery. *Rev Bras Cir Cardiovasc.* 2011;26(4):582-90.

Cardiopatias congênitas no interior do Nordeste brasileiro: dificuldades e soluções

Caro Editor,

Tendo nesses últimos 10 anos de minha vida profissional trabalhado no interior do Nordeste, inicialmente em Barbalha-CE, Mossoró-RN e, atualmente, Sobral-CE, gostaria de apresentar as dificuldades encontradas até aqui em se conseguir desenvolver um serviço de cardiopatia congênita. A principal dificuldade é a contratualização junto à fonte pagadora por 99% de nosso movimento cirúrgico, o SUS, e sua gestão. Até começamos a operar crianças recém-nascidas, implementamos o serviço com ambulatório, fisioterapia, cardiologista pediátrica e anestesia, material adequado, mas quando começamos, depois de poucos meses, veio uma redistribuição dos recursos financeiros das Secretarias de Saúde, e a parte pediátrica coube aos hospitais da capital.

Mas como? Distávamos mais de 500 km, no primeiro caso, e 300 km, no segundo e terceiro municípios. Como fazer pessoas carentes, que mal tinham onde morar e alimentar-se em sua terra natal, deslocar-se para capital e esperar nas longas filas dos hospitais públicos por uma vaga? O que fizemos? Continuamos nosso atendimento, não desmobilizamos nosso grupo e continuamos operando os maiores de 12 anos, contemplados pela contratualização, e os mais jovens conseguiam tratamento por meio de contatos pessoais com grupos da capital, que por conta das dificuldades, montavam organizações sociais e casas de apoio para retaguarda desse atendimento.

Bem ou mal, conseguíamos ir adiante, ora operando pacientes mais urgentes e recebendo administrativamente, ora encaminhando para os Serviços na capital. Porém, essas estruturas de apoio, hospitais privados que atendiam ao SUS, não conseguiram sobreviver aos atrasos e descasos com a saúde, agora temos uma nova dificuldade, mas não vamos desistir. Nosso Serviço tem aumentado, a interiorização da Medicina é uma realidade com os egressos das primeiras turmas das Faculdades de Medicina retornando depois de Estágios e Residências juntando-se às fileiras para continuarmos a prestar o melhor atendimento possível às crianças portadoras de cardiopatias congênitas [1-3].

Fabiano Gonçalves Jucá, Mamede Johnson Aquino Filho – Sobral, CE

REFERÊNCIAS

1. Pinto Jr. VC, Daher CV, Sallum FS, Jatene MB, Croti UA. Situação das cirurgias cardíacas congênitas no Brasil. Rev Bras Cir Cardiovasc. 2004;19(2):III-IV.

2. Maluf MA, Franzone M, Melgar E, Hernandez A, Perez R. A cirurgia cardíaca pediátrica como atividade filantrópica no país e missão humanitária no exterior. Rev Bras Cir Cardiovasc. 2009;24(3):VIII-X.

3. Croti UA, Mattos SS, Pinto Jr. VC, Aiello VD. Cardiologia e cirurgia cardiovascular pediátrica. São Paulo:Editora Roca;2008.

Institute name

Dear Dr. Domingo,

First of all, I would like to express my great gratitude to you for your kindness to publish 7 of my article in your valuable journal *Rev Bras Cir Cardiovasc* in 2011. You have known that I strongly requested you to change my institute name when proofreading the last 3 articles. However, for the first 4 article (as listed below) have the same problems regarding my institute name.

1. Cardiac surgery and hypertension: a dangerous association that must be well known.
Yuan SM, Jing H.
Rev Bras Cir Cardiovasc. 2011 Jun;26(2):273-81.
PMID: 21894419 [PubMed - in process]

2. Osteopontin expression and its possible functions in the aortic disorders and coronary artery disease.
Yuan SM, Wang J, Huang HR, Jing H.
Rev Bras Cir Cardiovasc. 2011 Jun;26(2):173-82.
PMID: 21894406 [PubMed - in process]

3. Cystic medial necrosis: pathological findings and clinical implications.
Yuan SM, Jing H.
Rev Bras Cir Cardiovasc. 2011 Mar;26(1):107-15. Review. English, Portuguese.
PMID: 21881719 [PubMed - indexed for MEDLINE]

4. The implications of serum enzymes and coagulation activities in postinfarction myocardial.
Yuan SM, Jing H, Lavee J.
Rev Bras Cir Cardiovasc. 2011 Mar;26(1):7-14. English, Portuguese.
PMID: 21881705 [PubMed - indexed for MEDLINE] .

I have to ask your kind help to change my Institute name to:

Department of Cardiothoracic Surgery, Affiliated Hospital of Taishan Medical College, Taian 27100, Shandong Province, People's Republic of China;

Corresponding Address: Shi-Min Yuan, MD, PhD, Department of Cardiothoracic Surgery, Affiliated Hospital of Taishan Medical College, 706 Taishan Street, Taishan District, Taian 271000, Shandong Province, People's Republic of China.

I sincerely hope that you could do me this favor. I feel awfully sorry for this trouble that I bring to you. Thank you very much for your consideration. I am looking forward to hearing from you.

Best wishes.

Sincerely,

***Shi-Min Yuan**, MD, PhD, Professor of Surgery & Head*
Department of Cardiothoracic Surgery
Affiliated Hospital of Taishan Medical College
706 Taishan Street, Taishan District
Taian 271000
Shandong Province
People's Republic of China
Tel 86 538 6236328

Capítulo de livro

Estimado Prof. Braile,

Aproveito a oportunidade para saudá-lo e solicitar a publicação do Link da Editora In-Tech - Contemporary Pediatric, na nossa RBCCV, onde foram publicadas Contribuições na Cirurgia Cardíaca Pediátrica sob o título: "Pediatric Cardiac Surgery: A Challenge of Skill and Creativity in Constant Search Results".

Desde já agradeço a sua atenção e ao mesmo tempo desejo parabenizá-lo pela "justa" homenagem recebida no Colégio Brasileiro de Cirurgiões.

Atenciosamente

Miguel Maluf, São Paulo-SP

Dear Prof. Maluf,

We are happy to inform you that the book Contemporary Pediatrics, ISBN 978-953-51-0154-3, edited by Öner Özdemir has been released online.

The permanent web address of your chapter entitled "Pediatric Cardiac Surgery: A Challenge of Skill and Creativity in Constant Search Results" can be reached by clicking on the link

http://www.intechopen.com/articles/show/title/pediatric-cardiac-surgery-a-challenge-of-skill-and-creativity-in-constant-search-results

A team of experienced publishing professionals at InTech is working hard to promote your chapter, and every day we are getting more feedback from delighted users on portals

such as ResearchGATE, Facebook and LinkedIn, in addition to growing coverage, traffic, page views and downloads from specialized portals and blogs. Feedback shows that there is great interest in the books published by InTech. Members of the above portals are expressing immense gratitude to our authors for sharing their findings in Open Access publications.

We hope that you are as proud as we are, and we thank you once again for participating in this worthwhile project.

You can take a few simple steps yourself to help promote your publication to an even wider audience. These steps include:

- Linking your chapter to your personal website or blog - Linking your chapter to your faculty / organization website - Linking your chapter to your library's website and informing your librarian - Depositing your chapter in the repository system of your university - Sending a link to your chapter to your fellow scientists - Sending short notices about your work using Twitter or Facebook, making it visible to your LinkedIn groups or other social networks - Being interviewed by your publishing company InTech, and getting your interview published on our blog and promoted online (contact your Publishing Process Manager about an interview)

- Writing a soft introduction for a wider audience, so that InTech may include it in press releases for popular science news portals

We'll be glad to help you in bringing your work to the attention of your colleagues worldwide, so please do not hesitate to contact us.

We look forward to going forward with you into a bright future - a future where all scientists can harvest the benefits of sharing their ideas and connecting with their colleagues around the world.

Kind regards,

Ms. Sandra Bakic
Publishing Process Manager
InTech - Open Access Publisher

Prof. Paulo Pêgo recebe prêmio ABC de Publicação Científica

O professor Paulo Manuel Pêgo Fernandes, membro do Conselho Editorial da RBCCV, e colegas receberam o VII Prêmio ABC de Publicação Científica pelo trabalho intitulado "Efeitos hemodinâmicos da sobrecarga ventricular direita experimental" (disponível em: http://www.scielo.br/pdf/abc/v96n4/en_aop01811.pdf). Esse trabalho é parte da tese de doutorado do aluno Flávio Brito Filho, orientando do professor Paulo Pêgo.

Os artigos premiados foram selecionados por 30 especialistas nacionais, sendo considerados aspectos relacionados à originalidade e relevância do tema da pesquisa, ao delineamento da metodologia, ao impacto dos resultados na sua área do conhecimento e à clareza e adequação das conclusões apresentadas.

O prêmio ABC de Publicação Científica foi instituído, em 2005, pela Sociedade Brasileira de Cardiologia (SBC), com o objetivo de incentivar e reconhecer a produção científica nacional em cardiologia. Em 2010, o professor Paulo Pêgo já havia recebido esse prêmio com o trabalho "Bloqueio simpático esquerdo por videotoracoscopia no tratamento da cardiomiopatia dilatada".