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EFFECTIVENESS OF GERIATRIC DAY HOSPITAL IN IMPROVING QUALITY OF LIFE

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Aim

The benefit of Geriatric Day Hospital (GDH) in improving physical and functional outcome has been well established. Whether the quality of life can be altered remains uncertain.

Method

All patients admitted to the GDH of Kwong Wah Hospital (8/97 to 12/00) with an AMT score >6 were enrolled. The subjective well being on admission and discharge was documented with WHOQOL-Chinese version. The functional and mobility status were measured with the Barthel Index (BAI) and Elderly Mobility Score (EMS).

Results

A total of 184 patients was documented. The mean age was 73.16(SD 8.6) years. There were 93 men and 90 women. The median AMT was 9. The average number of visits was 25.8 (SD 12) and the mean duration of attendance was 3.5 months (SD 1.9). There were 105 subjects living at home on discharge and 75 living in nursing home. Those living at home tend to have a higher BAI on discharge than those living in care and attention home (98 vs. 90.5, $p<0.001$). EMS was significantly higher in subjects living at home (18 vs. 13, $p<0.001$). There was significant improvement in BAI (90 vs. 96), EMS (13 vs. 17), psychological domain (44 vs. 50) and physical health domain of the QOL questionnaire (50 vs. 56) upon discharge ($p<0.001$). There was no significant change of environmental and social domain. The overall general score did also show significant change (6 vs. 7, $p<0.001$).

Conclusion

We conclude that GDH is effective in enhancing both subjective perception and objective measurement of physical and functional status. However, subjective improvement in environmental and social domains was not observed.

COMPARISON BETWEEN TWO FEEDING METHODS IN TUBE-FED PATIENTS WITH DIARRHOEA

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Background

Diarrhoea is a common problem in tube-fed patients. Various culprits have been identified, including concomitant antibiotic treatment, syrup medications, Clostridium Difficile toxin, and the nature of the formulae. Although the use of continuous feeding is traditionally believed to cause less diarrhoea, trial evidence is lacking.

Objective

This study is undertaken to compare the effect of two feeding methods on diarrhoea in tube-fed patients.

Design

Randomized controlled trial.

Setting and Participants

The general and geriatric subspecialty wards in a regional hospital. Patients over the age of 65 who developed diarrhoea on intermittent tube-feeding.

Intervention

Subjects are randomized either to switch to continuous tube-feeding or to continue intermittent tube-feeding for 3 days. Modification of strength, volume or fibre content of formula and pharmacological interventions are at the discretion of the attending clinician in both groups. Continuous infusion is delivered via a pump set over 16 hours each day, at a rate of 1 - 2 ml per minute. Intermittent feeding is delivered via feeding funnel using gravity at a rate of approximately 10 ml per minute. Napkins are inspected 6 times per day by independent observers. Volume, consistency and frequency of bowel openings are recorded.

Outcome measurement

There was reduction of diarrhoea after intervention in both groups.

OUTREACH GERIATRIC SERVICE TO PRIVATE OLD AGE HOMES IN HONG KONG WEST CLUSTER - WINNING THE FIRST BATTLE

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Introduction

In Hong Kong, a large proportion of institutionalized elderly people are residing in private old age homes (POAHs). Unfortunately, the quality of care is generally poor in POAHs and most of the staff are untrained. Starting from July 1999, Community Geriatric Assessment Teams (CGATs) have been providing service to the POAHs. Hitherto, the effectiveness of CGAT service in POAHs is still unknown.

Objective

This study examines the impact of Hong Kong West CGAT service in POAHs in terms of Accident and Emergency (A&E) Department attendance, hospital admissions, hospital bed-days, polypharmacy and multiple clinic follow-up.

Methods

316 residents of age ≥ 60 in 14 POAHs covered by Hong Kong West CGAT between July 1998 to April 2000 were studied. They all had been attended by CGAT for ≥ 6 months.

Results

The residents were of poor functional state and cognition, with polypharmacy and multiple pathology. Incontinence, impaired vision and hearing were common. After ≥ 6 months of CGAT intervention, the average regular drugs and outpatient clinics per person were reduced by 10% and 54% respectively (drugs: 2.8 ± 0.1 vs 3.12 ± 0.12 , $p=0.001$; outpatient clinics: 0.67 ± 0.04 vs 1.48 ± 0.05 , $p<0.001$). Subgroup analysis of 142 subjects being seen by CGAT for one year or more showed 19% and 22% reductions in A&E attendance and acute hospital admissions respectively (A&E: 1.43 ± 0.17 vs 1.77 ± 0.2 , $p<0.05$; acute hospital: 1.27 ± 0.16 vs 1.63 ± 0.18 , $p<0.05$). Moreover, 43% and 32% reductions in acute hospital and convalescence hospital bed-days were found in the post-CGAT year (acute hospital: 4.8 ± 0.67 vs 8.4 ± 1.0 days, $p=0.001$; convalescence hospital: 10.5 ± 2.2 vs 15.5 ± 2.5 days, $p<0.05$).

Conclusion

The results suggest that CGAS is an effective health care delivery model. There are yet many challenges ahead for the CGAT to overcome, particularly in promoting the standard of care and quality of life of POAH residents.

PROGNOSTIC SIGNIFICANCE AND RISK FACTORS FOR METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS INFECTIONS IN A GERIATRIC UNIT IN HONG KONG

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Background

Methicillin resistant Staphylococcus Aureus (MRSA) is a major cause of nosocomial infections in the Geriatric unit in Tuen Mun Hospital. Infection control measures were commenced in September 1999 in the male geriatric ward in TMH aimed to prevent the spread of MRSA infections.

Objectives

To retrospectively study the outcome and risk factors for MRSA infections for our local geriatric patients.

Methods

A retrospective case-controlled study of 90 MRSA culture positive male elderly were collected from September 1998 to August 1999 and were compared and analyzed with equal number of male elderly without positive culture for MRSA as control. Their demographics, possible risk factors for MRSA infections, duration of stay, mortality and future chance of hospitalization were analyzed and compared with control.

Results

Demographics did not differ significantly between MRSA positive and negative patients. MRSA positive elderly have significantly longer duration of stay and higher chance of future hospitalization within 6 months after discharge. Elderly with MRSA infections have much higher in-hospital mortality and mortality at 6 months after discharge as compared with control.

Prior treatment with broad-spectrum antibiotic, prior history of MRSA infection, history of frequent

hospital admissions >2 times in recent 3 months, history of hospital readmission within 1 month, presence of dependent ulcer, being put on invasive devices like IV catheter, urinary catheter and nasogastric tube, being from private or subvented old aged institute were all associated with increased risk of MRSA infection.

Further multivariate analysis using logistic regression identified only 3 independent risk factors for MRSA infections, namely, history of prior treatment with broad-spectrum antibiotic, being put on IV catheter and presence of dependent ulcer.

Conclusions

The increased length of stay, higher chance of future hospitalization and higher mortality associated with MRSA infection in our elderly reflects the extra cost and burden to our health care resources. So, it is likely to be cost-effective to control the epidemic spread of MRSA infections for our elderly. Various risk factors for MRSA infections are identified in this study which may help us to identify the high risk elderly group for better prevention in future epidemics.

CLINICAL ALZHEIMER'S DISEASE IN A REGIONAL MEMORY CLINIC IN HONG KONG

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Introduction

Symptomatology of Alzheimer's Disease (AD) and risk factors of institutionalization have been widely reported in the Caucasian populations. Local data are lacking in Hong Kong.

Objectives

To review the clinical features of Alzheimer's disease and examine factors associated with institutionalization.

Design and Setting

A retrospective case series analysis. A regional Memory Clinic in Queen Mary Hospital

Methodology

Case records of all consecutive patients attending the Queen Mary Hospital's Memory clinic from 1/1/1997 to 30/6/2000 were reviewed. All

patients who had probable AD (i.e. AD) by NINCDS-ADRDA criteria were recruited. Demographic data, presenting symptom, cognitive and non-cognitive symptoms, vascular risk factors, cognitive assessment scores, functional status and place of residence were documented and analyzed.

Results

96 AD patients were recruited. 72.9% were female. The mean age at first visit was 77.3 years (s.d.= 6.55 years). The interval between symptom onset and first visit was 3.1 years (s.d.=2.0 years). 90.6% presented to the clinic because of poor short-term memory. History of getting lost was associated with disorientation in place, "moderate to severe" severity of dementia, history of wandering, and formal education. 83.3% had non-cognitive symptoms at clinical presentation. These included behavioural changes (59.4%), perceptual/ psychotic changes (51.0%), sleep (27.1%) and mood (24.0%) changes. Institutionalized AD was characterized by an older age at first visit, being widowed, had atrial fibrillation, lower MMSE scores, more advanced stages of dementia, lower BADL and IADL scores, more unusual behaviours, poorer comprehension of language and more comorbidities. Multivariate logistic regression analyses reviewed that marital status, the number of comorbidities and IADL scores were independent risk factors associated with institutionalization. The mean time from symptom onset to institutionalization was 36.8 months (s.d.=29.3 months).

Conclusions

The clinical features of AD among Chinese elderly in a regional Memory Clinic in Hong Kong share many common features to those reported by Caucasian studies. Several risk factors were found to be associated with institutionalization in our AD patients.

MANAGEMENT OF ELDERLY HIP FRACTURES THROUGH A MULTIDISCIPLINARY CLINICAL PATHWAY - A PILOT PROGRAM

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Aim

To determine the effect of a multidisciplinary clinical pathway on the efficiency of clinical service delivery and outcomes measures for elderly patients with fracture neck of femur.

Methods

Retrospective case control study of medical records of elderly fracture hip patients between October 1998 to March 1999, admitted to the orthopedic ward. The clinical pathway was only introduced after January 1999, so those patients admitted between October 1998 to December 1998 were the pre-pathway group (without the use of clinical pathway) and those admitted between January 1999 to March 1999 were the post-pathway (with the use of clinical pathway). The two groups had their demographic and outcome data compared.

Results

Demographic data were all comparable between the two groups. For the outcomes, the total length of stay in hospital was shortened after the implementation of clinical pathway from 41 days to 29 days ($p=0.03$), length of stay in orthopedic ward was decreased from 25.4 days to 19.9 days ($p=0.01$). More prompt referrals was made to most disciplines after the clinical pathway usage: to rehabilitation specialist decreased from 5.6 days to 0.7 days ($p=0.002$), to physiotherapist reduced from 3.9 days to 0.7 days ($p=0.000$) and to occupational therapist shortened from 24.3 days to 1.1 days ($p=0.000$). Also, more prompt operation was done for the fracture hip in the post-pathway group, the lapse time from admission to operation was decreased from 5.6 days to 2.9 days ($p=0.003$). Moreover, more awareness of the problem of osteoporosis was noted in this group of high risk patients after clinical pathway usage, as evidenced by the increase osteoporosis treatment in the post-pathway group on discharge. Though, the length of stay was shortened after clinical pathway

implementation, the quality of care was maintained as there were comparable discharge functional level, discharge destination and complication rates between the two groups.

Conclusion

The use of a multidisciplinary clinical pathway in the management of elderly fracture hip patients was proven promising in this pilot program, in terms of decreasing length of stay in hospital without compromising the functional outcomes, more prompt referrals to the appropriate disciplines, shortened admission to operation time and improved awareness in the osteoporosis treatment. But a larger randomized control study would be needed before a more definite conclusion could be drawn.

INTERMITTENT VERSUS INDWELLING URINARY CATHETERIZATION IN THE MANAGEMENT OF ASYMPTOMATIC URINARY RETENTION

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Background

With the introduction of the bladder ultrasound, asymptomatic urinary retention is increasingly recognized but there is no existing literature addressing on its management.

Aim

To determine whether intermittent urinary catheterization is superior to indwelling catheterization in the management of asymptomatic urinary retention in older female patients in a setting.

Methods

Patients with post void residual urine (PVRU) > 150ml were classified as retention and were monitored by ultrasound bladder scan three times a day. If PVRU > 300ml at any stage, they would be randomized into intermittent (IMC) or indwelling (IDC) urinary catheterization groups. Subject in the IMC group would receive intermittent catheterization when PVRU > 500ml without symptoms or > 300ml with symptoms. Subjects in the IDC group would try without catheter at least once per week. If successful, PVRU would be

reviewed on day-fourteen. If failed, catheter would be reinserted if PVRU > 300ml. Urine cultures would be sent on day-zero and day-fourteen for all subjects. Primary endpoint was the proportion of subjects with PVRU < 150ml on day-fourteen. Secondary endpoint was the incidence of confirmed bacteriuria on day-fourteen. We also looked into different medications used in these subjects that could affect urinary retention (diuretics, calcium channel blockers, agents with anticholinergic effect, alpha-blockers and ubretid).

Results

Sixty subjects had been randomized, 26 to the IMC group and 34 to the IDC group respectively.

16 (out of 21) subjects in the IMC group versus 18 (out of 30) subjects in the IDC group had a PVRU < 150ml on day-fourteen ($p=0.183$). After excluding those with bacteriuria upon recruitment, 7 (out of 11) subjects in the IMC group versus 15 (out of 18) in the IDC group had bacteriuria on day-fourteen ($p=0.375$). After logistic regression, only Ubretid was found to be a predictor of outcome, but of adverse outcome.

Conclusion

Based on our results so far, intermittent urinary catheterization is not superior to indwelling catheterization in terms of relieving urinary retention within two-week's time in a setting.