smoking. Both smokers and non-smokers were aware of the health hazards of smoking but facts like risk of heart attack and GI malignancy, effect on pregnancy and hazard of passive smoking were less known. Unlike other studies which show a higher proportion of smokers with a family member smoking, in our study no difference was noted. Tobacco use in children of age 10 to 15 years has been reported. In our study onset was noted in 16 to 20 year age group. Knowledge score on smoking was higher in males in this study. This could be due to the larger number of males in the study and that the exposure to smoking may be more in males. Among those who preferred the company of smokers more males preferred it. Supari and pan use were significantly higher among the smokers than non-smokers. More males felt that antismoking campaigns are not useful to control smoking than the females. The study emphasizes that knowledge on health hazard on certain aspects has to be filled in, but knowledge imparting may not be the only component in effective control of smoking.

SUMMARY

176 Arts students out of 450 students doing their under-graduation in an age range of 17 to 24 years returned a questionnaire designed to test their level of knowledge about smoking, attitude towards smoking and practice of smoking. 96.6% of the respondents were aware of the injurious nature of smoking. Potential to induce lung cancer was known by 93.2% of them, but only 34.1% knew it was a factor for GI malignancy. A higher proportion of males had good knowledge whereas females had moderate knowledge (p = 0.04). The incidence of smoking was 33.1%. A higher proportion of smokers chewed pan and consumed supari. 68.2% of smokers wished to quit smoking. Easy availability (47.7%) and influence of friends (34.1%) were the predominant reasons to smoke. Interestingly, 48% of males felt that smoking women had appeal. Anti smoking campaigns in addition to provision of information has to focus to towards a change in attitude to smoking.

REFERENCES


INTRODUCTION

Nonfermentative gram-negative bacilli (nonfermenters) are generally saprophytic in nature but can cause a significant number of infections, particularly in the hospitalised patients and compromised hosts. Pseudomonas aeruginosa and Acinetobacter baumanii are most common nonfermenters pathogenic for humans. Infections caused by other species are relatively infrequent. Antimicrobial treatment of the nosocomial infections caused by these agents may be compromised by multiple drug resistance to β-lactams, aminoglycosides and fluoroquinolones. Imipenem, a broad spectrum β-lactam antibiotic and the first carbapenem to be used for clinical use, is an important drug for treatment of such infections. Imipenem offers the advantage of being more stable to most β-lactamases than the third generation cephalosporins. Unfortunately paralleling its increasing use in the west, resistance to imipenem has increased mainly among gram negative bacilli and particularly P. aeruginosa. In the SENTRY Antimicrobial Surveillance program (SASP), 10 to 30% of P. aeruginosa strains from various countries have been found to be resistant to imipenem. The nosocomial strains of nonfermenters exhibited a higher level of resistance. Though imipenem is not yet licensed in India, it is being used in the treatment of complicated infections not responding to other antimicrobial agents. To the best of our knowledge, no published data is available as far as resistance to this drug in nonfermenters is concerned. Therefore, the present study was undertaken to find out the minimum inhibitory concentration (MIC) of imipenem for nonfermenters causing nosocomial UTI, to study the antibiotic resistance to other antimicrobial agents and to compare the difference in antibiotic susceptibility among imipenem sensitive and resistant strains.

MATERIAL AND METHODS

Test organisms: A total of 85 strains of nonfermenters isolated in pure culture and significant numbers from same number of patients suffering from nosocomial urinary tract infections were taken up for the study. The strains were identified and characterized...
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RESULTS

The 85 strains included *Pseudomonas* spp. (39); *Acinetobacter* spp (35); *Alcaligenes* spp (6), *Flavobacter* spp (2), *Weekella* virosa (2) and one strain of CDC IIg. Overall 36.4% of the strains were resistant (R) and 12% were immediately sensitive (I S) to imipenem. Forty-two percent of *P. aeruginosa* and 18.5% of *Acinetobacter baumanii* were imipenem resistant. Other strains which were resistant to imipenem included *Alcaligenes* spp (4/6), *Acinetobactercalcoaceticus* (1/3), *Acinetobacterlwoffii* (1/3), *Acinetobacterhemolyticus* (1/1), *Burkholderia* (Pseudomonas) *picketti* (1/2), *Burkholderia vesicularis* (1/1), CDC IIg (1/1) and *Flavobacter odoratum* (1/1) and *Flavobacter indologenes* (1/1) (Table 1).

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The table 2 depicts the percentage resistance to other antimicrobial agents. A high level of drug resistance was observed (≥70% for ceftazidime, gentamicin and ciprofloxacin). Least resistance was observed for piperacillin and amikacin (approximately 45% each). Seven out of 31 strains were multi drug resistant. *P. aeruginosa* (MDR PSA- defined3 as *P. aeruginosa* resistant to gentamicin, piperacillin, ceftazidime and imipenem). The difference in the antibiotic susceptibility to other agents among the imipenem susceptible (n=54) and imipenem resistant (n=31) is depicted in table 3. The difference was not statistically significant even for piperacillin.

DISCUSSION

Nonfermenters are ubiquitous in the environment. Usually considered as...
Antibiotics | Imipenem resistant n=31 | Imipenem susceptible and moderately resistant (n=54)
--- | --- | ---
Gentamicin | 23 (74.1%) | 40 (74.0%)
Amikacin | 14 (45.1%) | 25 (46.2%)
Ceftazidime | 22 (70.9%) | 38 (70.3%)
Netilmicin | 19 (61.2%) | 33 (61.1%)
Piperacillin | 16 (51.6%) | 22 (40.7%)
Ciprofloxacin | 22 (70.9%) | 38 (70.3%)

In the present study, seven out of 31 strains of *P. aeruginosa* were MDR PSA resistant to piperacillin, ceftazidime, imipenem and gentamicin. Maximum numbers (8.2%) of these were reported from Latin America, followed by Europe (4.7%), Asia Pacific (1.6%), USA (1.2%) and Canada (0.9%).

Apart from piperacillin, all other antibiotics exhibited the same resistance profile among the imipenem S and R isolates. However, this difference was not statistically significant.

In the present study, the high level of drug resistance was most probably due to inclusion of strains causing complicated nosocomial infections. In fact, some of the patients failed treatment with 3 to 4 antibiotics. Piperacillin and imipenem either alone or in combination with amikacin were used for treating the patients not responding to treatment with fluoroquinolones, aminoglycosides and ceftazidime. More studies are required to know the exact magnitude of the problem in India.

**SUMMARY**

Nonfermenting gram-negative bacilli (nonfermenters) have emerged as important nosocomial pathogens causing opportunistic infections in immunocompromised hosts. These organisms show high level of resistance to β-lactam agents, fluoroquinolones and aminoglycosides. Imipenem is a carbapenem antibiotic, which can be very useful for treatment of infections caused by nonfermenters.

Eighty-five nonfermenters causing nosocomial UTIs were tested for MIC to imipenem by agar dilution method. Resistance to other antimicrobial agents was compared between imipenem sensitive (S) and resistance (R) groups.

Overall 36.4% of nonfermenters were resistant to imipenem. Forty two percent of *P. aeruginosa* and 18.5% of *Acinetobacter baumannii* were imipenem resistant. Other nonfermenters showed variable resistance, resistance in *Alcaligenes* spp. being very high. More than 70% of the nonfermenters were resistant to ceftazidime, gentamicin and ciprofloxacin. Piperacillin and amikacin had the best in vitro susceptibility.

No significant difference was found in the antibiotic susceptibility profile among imipenem sensitive (S) or resistant (R) strains.

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against nonfermentative gram-negative bacilli.


Injuries are common occurrences in today's world. However, certain occupation exposes the workers employed in it to unusual excess risk of injuries. Stone quartz industry, which provides livelihood to a large proportion of population, is one such occupation. This industry mostly being an unionized one exposes the worker through dual risk. Firstly, being an unorganized sector these are small industry devoid of mechanized processes. Processes such as screening, loading and unloading, etc. are all carried out manually. This exposes the workers to increased risk of getting minor and severe injuries. Secondly, the workers are not covered under any social security scheme and thus most of the times they do not get timely care for injuries. Additionally widespread prevalence of illiteracy among workers also prevents the workers from proper care of injuries. If the initial management of wounds and injuries is improper and inadequate, even minor injuries may be complicated by wound sepsis. Thus, the awareness about proper injury care among stone quartz worker gains importance. Moreover, no such studies among this group of workers had been carried out, particularly in India. Fortified by this fact the present study was carried out to study the level of knowledge and practices about injury care among stone quartz workers.

MATERIAL AND METHODS

The present cross sectional study was carried out among the stone quartz workers of Chhotaudepur taluka of Gujarat state. A total of 137 stone quartz workers were included in the present study. Using interview technique as a tool for data collection the details of demographic characteristics were recorded on predetermined proforma. The questions eliciting knowledge, attitude and practices of stone quartz workers were included in the second part of questionnaire. Statistical analysis included calculation of proportions and percentages.

RESULTS

The distribution of study subjects according to demographic characteristics is depicted in Table 1. Of the total 137 subjects, 75(54.7%) were males while 62 (45.3%) were females. Majority of the workers belongs to the age group of <40 years. 85.4% of the workers...